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Twenty-eight Years of Testing TREE FRUIT VARIETIES at the Cheyenne Horticultural Field Station, Cheyenne, Wyoming

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TWENTY-EIGHT YEARS OF TESTING TREE-FRUIT VARIETIES AT THE CHEYENNE HORTICULTURAL FIELD STATION, CHEYENNE, WYOMING

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INTRODUCTION

The central Great Plains, which includes southeastern Wyoming, where the field station is located, is not an area of general tree-fruit production. It has been classed as semi-arid with an average annual rainfall ranging from about 12 inches in the western part to nearly 20 inches in the eastern part (fig. 1).

Because of the climatic conditions, particularly as they relate to low winter temperatures, late spring frosts, and short-season frost-free growing periods, it is doubtful if the area will ever become important in commercial tree-fruit production. The only tree-fruit enterprise that has succeeded in the central Great Plains was the sour cherry (P. cerasus) industry between Loveland and Wellington, Colo., on the plains immediately east of the Rocky Mountains. That industry, in 1960, was less than one-fourth as large as in the earlier years of its history. A few commercial apple orchards have been grown in that same general area, but their total production has been small.

Regardless of adverse conditions, experimental results indicate that some of the hardy tree fruits can be grown satisfactorily. At the time the Cheyenne Horticultural Field Station was established in 1928, considerable importance was attached to the home fruit garden as a source of fresh fruit and fruit for home processing. The national economy has undergone many changes since that time. There has been growth and evolution of the systems of transportation, of the national tree-fruit industry, and of the supermarket food store. Insect pests and diseases of fruit trees have become widespread throughout the entire country, so much so that their control requires the use of scientific and accurate knowledge in spray programs and cultural practices. The period from World War II into the 1960's has been a time of high national income; families, as a result, have preferred to buy fresh, frozen, and canned fruits at the supermarket rather than to grow and process fruits at home. These facts have lessened the importance of the home fruit garden in difficult areas. However, trees of adapted varieties should be maintained as sources of scionwood in the event of need or emergency.

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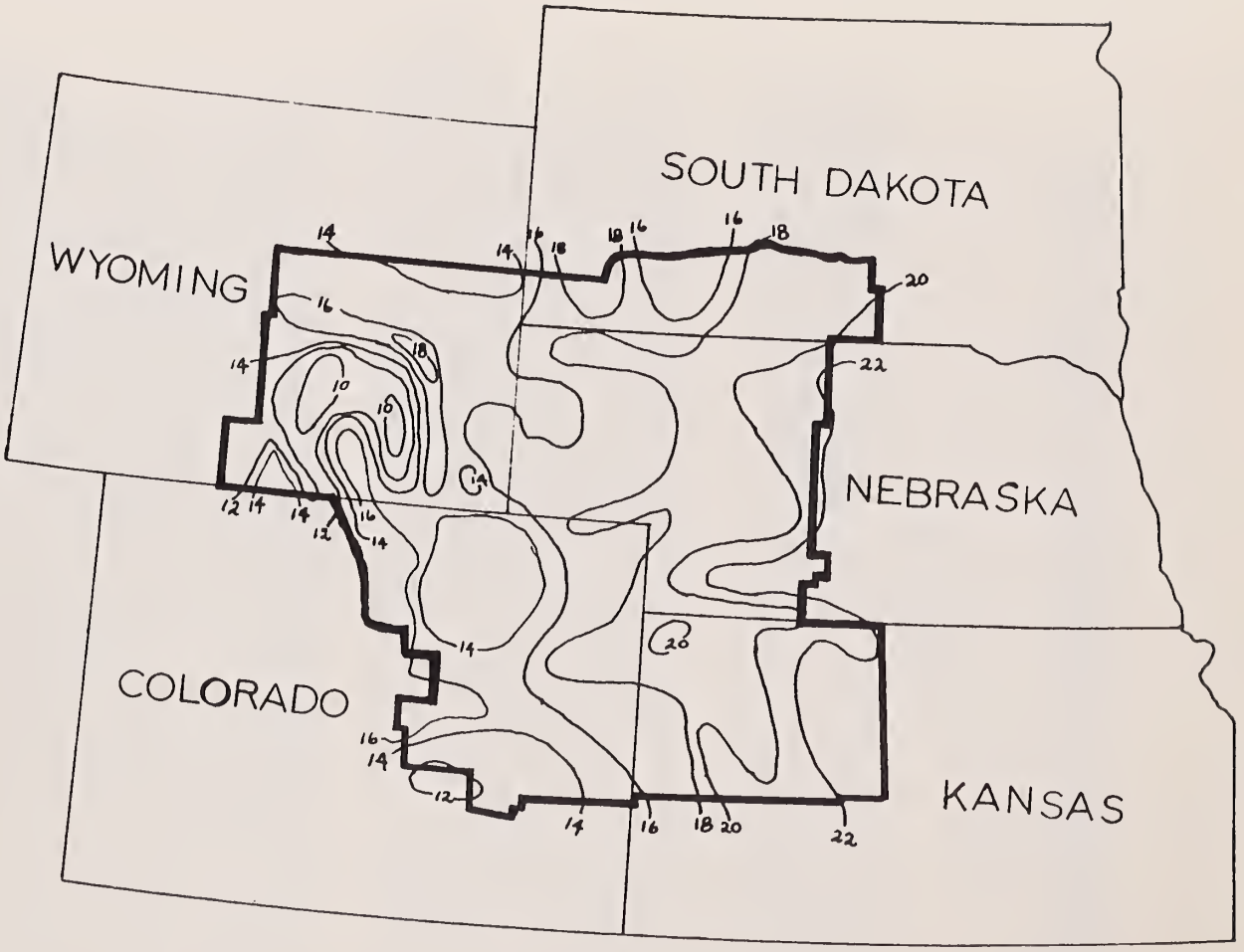

Figure 1.--The central Great Plains area, outlined by the heavy line, showing the average rainfall in inches, as adapted from the 1941 Yearbook of Agriculture (10).

This study is an enumeration and performance analysis of fruit trees according to variety of apple, plum, cherry, and pear within orchards of the Cheyenne Horticultural Field Station, the oldest of the experimentally planted trees having been planted about 30 years previously. The experiment, involving testing of tree-fruit varieties for their adaptation to the environment of the central Great Plains, was conducted under the supervision of Dr. A. C. Hildreth, former Station Superintendent.

REVIEW OF LITERATURE

Steinbrech (9)[2/] reported tree-fruit experiments that began in 1892 at the Wyoming Experimental Fruit Farm at Lander. The small plantings at that station were expanded beginning in 1905. The objective in the variety testing was to find the best varieties that would survive and fruit under their particular climate. Only those varieties that were thoroughly tested were reported in Steinbrech's study. He grouped tree-fruit-variety response into three classifications: hardy and prolific, not entirely hardy, and not adapted. In the hardy and prolific group he included 38 of 178 apple, 14 of 18 crabapple, 15 of 42 plum, 6 of 18 cherry, and none of 11 pear varieties tested. Seven of the pear varieties were described as not reliably hardy. Descriptions and notes were given on the tested varieties. Three varieties of apricot, one of quince, and two of peach were included in the trials, but were not rated according to adaptability.

Nelson (8) noted that four apple varieties had been hardy and productive on the State Experiment Farm at Archer, Wyo. He also listed two sandcherry plum hybrids that had performed satisfactorily.

Edmondson (3) recommended tree-fruit varieties for the State of Wyoming generally, listing apples, crabapples, plums, and sour cherries.

Drage and Beach (2) reported on adaptable tree-fruit varieties for the plains and foothill regions of eastern Colorado. They listed a number of varieties of apple, cherry, and plum.

Hansen (4, 5, 6) wrote at length of the tree-fruit-growing problems in the northern and central Great Plains areas and made many recommendations concerning species and varieties.

Baird (1) described varieties of apple, crabapple and plum and plum hybrids, adapted to the growing conditions of the northern Great Plains, and discussed the performance of apricots and pears there.

2/ Numbers in parentheses refer to Literature Cited at the end of this report.

Leslie (7) of the Morden, Manitoba Station gave an account of the tree fruits that grow in Canadian prairie orchards. He listed 70 apples, 44 crabapples, 11 pears, 17 apricots, 79 plums and their hybrids, and 12 sour cherries.

The U. S. Department of Agriculture (11, p. 164) reported the sour cherry production for Colorado as averaging 2,270 tons for the years 1946 through 1955. According to information from the Colorado State University at Fort Collins, approximately 300 tons were produced in 1960 to the east of the Colorado Rockies in the central Great Plains.

Literature published prior to the beginning of the tree-fruit variety testing at Cheyenne (4, 8, 9) furnished useful information particularly concerning rootstocks, cultural practices, and some varieties. The variety testing at Cheyenne, however, included all varieties of the four fruits that could be obtained, irrespective of previous experience with them at other locations.

MATERIAL AND METHODS

The fruit-tree plantings at the Cheyenne Horticultural Field Station in this experiment were begun in the dryland orchard in 1931 and in the irrigated orchard in 1932. Apple and pear varieties were planted over the period of years 1931 through 1945; plum and cherry varieties were planted over the period 1931 through 1949. Plans called for three trees of each variety to be set at different locations in each orchard, since the orchard areas were not uniform in soil type and topography. Sometimes more than three trees of a variety were tested because identical varieties were obtained under synonymous names. Quite often, less than three trees of a variety became established; replacements however were usually made 1 year after the first planting, where a tree loss occurred.

Rootstocks for all varieties of apple and crabapple were, as far as was known, hardy crabapple seedlings. Most plums were on *Prunus americana* rootstock; the prunes were on *P. cerasifera* stock and cherry rootstocks were *P. mahaleb*. Rootstocks for pear varieties were generally unknown.

Fruit trees of the same species were grown close together to insure good pollination. Although native bees and other good pollinating insects are numerous in the Cheyenne area, several stands of honey bees were kept in the orchard areas during the years of the experiment to insure adequate pollinating insects.

Original spacing distances of trees in each orchard were 15 feet in the row with the rows 30 feet apart. In 1942, alternate trees were removed in both orchards to facilitate normal orchard operations

with power equipment. All tree spacings thereafter were kept at 30 feet by 30 feet, which appeared to be beneficial from the standpoint of optimum moisture availability for each tree, particularly in the dryland orchard.

The irrigated orchard received annual irrigation in midsummer and late fall and was interplanted with a cover crop in its early years when tree growth tended to be excessive. Otherwise both orchards were kept cleanly cultivated and reasonably free of weeds. The dryland orchard was never given supplemental water even in extremely dry years. No commercial or organic fertilizers were provided for either orchard during the experiment.

Both orchards were regularly pruned to form low-headed trees of a close modified leader type. Deadwood was removed and thinning of branches and twigs was light to moderate.

The orchards were sprayed as necessary for the control of codling moth and canker worm. The only methods of control for fireblight were pruning of infected trees, in both orchards, and judicious watering in the irrigated orchard. Other diseases were not apparent.

Bloom and yield data were collected and recorded annually to the end of the experiment. Measurements for the growth (height) data of this study were taken in 1959 and 1960, and the average age of trees was recorded at this time of conclusion of the experiment. No attempt was made to rate size and quality of fruit.

RESULTS AND DISCUSSION

The use of small numbers of trees or of only one tree to represent a variety in performance tests is insufficient for a drawing of final conclusions, but does give some indication of growth and productivity of varieties under the test conditions at the Cheyenne Station.

A study of the accompanying tables will show that some of the varieties of apple, plum, cherry, and pear differ considerably from other such varieties as to yield and regularity of bearing (tables 1-4). Some otherwise high-quality varieties were poor bearers, hence would not be desirable for planting in the home fruit garden in the area.

Bloom and yield data for the apple varieties, table 1, show that some varieties bloom later than others. The highest yielding apple and crabapple varieties show average dates for attainment of full bloom to be between May 25 and 29, inclusive. Several varieties or selections of apples have an average date for full bloom as late as June 1, none of which has been among the highest yielding varieties in this study. Therefore, it seems that late blooming alone is not necessarily a desirable factor for tree-fruit production in the area.

Furthermore, other factors, including fruit-bud hardiness, seem to have a greater effect on consistent bearing than does the late-blooming character. The same observations seem to be valid concerning the blooming dates of the plum varieties, table 2.

Column 6 of tables 1, 2, and 3, and column 5 of table 4, present the average date of full bloom for apple, plum, cherry, and pear respectively. These dates are averages for 10-year periods for each species, hence are comparable. The other performance data in these tables cover each variety from the beginning to the close of the experiment in 1958 for the dryland orchard and in 1959 for the irrigated.

The last column in the yield data for apples and crabapples, table 1 and for pears, table 4, is the fireblight-susceptibility index. Each figure given was the highest fireblight reading recorded for the variety during the term of this experiment. The indexes range from 1 to 5, with 1 as very light infection and 5 as severe infection. Absence of an index figure for a variety does not necessarily imply fireblight resistance.

Tables 5, 6, 7, and 8 show the kinds of fruit by variety of apple, plum, cherry, and pear respectively, that failed to survive and the number that had been planted. In some cases, the trees failed to become established; in other cases the trees lived for 2 or 3 years but died before blooming. Generally, it is assumed that these varieties lacked the hardiness to survive the rigorous climate. Poor nursery stock may have contributed to losses of the trees that did not become established.

Fireblight, while present on apples and pears, was not bad enough to cause many losses. Lime-induced chlorosis was evident in some older trees, but seldom in those dying the first few years after planting.

CONCLUSIONS

Some varieties of apple and crabapple, of pear, of plum, and of sour cherry can be grown satisfactorily in the central Great Plains area. The performance as shown in the list should assist in indicating varieties that are hardy and are adapted to the central plains area. The most desirable varieties show high yields combined with a large number of years fruited, indicating reliable bearing habits on an annual basis.

TABLE 1.—Data for Apple Varieties Surviving

Name	Apple or crab apple	Irrigated or dryland orchard	Number of trees averaged	Average number of years bloomed	Average age to first bloom	Average date of full bloom	Average number of years fruited	Average annual harvest date	Average annual yield	Average height	Average age at measurement	[1]Fireblight susceptibility index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
ACH #31	A	D.L.	2	1	14	-	-	-	-	9.0	17	5
ACH #33	A	Irr.	1	1	15	-	-	-	-	9.2	18	-
Ada Red	A	Irr.	1	7	8	-	4	9/26	14	9.2	25	5
Adel	A	Irr.	1	19	6	5/27	8	9/23	62	15.6	27	1
Adel	A	D.L.	1	16	8	5/26	9	9/25	159	15.4	26	-
Aikin	A	D.L.	1	15	8	5/29	8	9/21	23	12.0	26	-
Alberta	C	Irr.	2	19	4	5/27	13	9/27	97	13.1	25	1
Alberta	C	D.L.	2	13	6	-	6	9/30	25	12.5	22	-
Alexander	A	Irr.	1	3	17	-	2	-	-	14.6	22	3
Alexander	A	D.L.	1	3	17	-	2	-	2	15.0	21	3
Alexis	C	Irr.	2	17	5	5/25	11	9/10	76	14.9	25	1
Allens Choice	A	Irr.	1	16	7	-	12	9/24	39	16.0	27	2
Allens Choice	A	D.L.	2	16	8	5/28	10	9/27	34	12.0	26	1
Ames 426	A	Irr.	1	16	7	5/28	7	10/3	8	14.6	26	2
Ames 438	A	Irr.	1	10	11	-	5	10/3	4	13.0	23	1
Ames 438	A	D.L.	1	15	7	5/29	10	9/19	12	10.3	25	1
Ames 471	A	Irr.	2	11	7	5/30	8	10/4	48	15.1	26	3
Ames 471	A	D.L.	1	5	12	-	3	9/27	20	10.0	22	1
Amsib	C	Irr.	3	10	8	5/30	4	9/26	15	8.9	28	4
Amsib	C	D.L.	1	5	9	-	-	-	-	9.2	27	1
Amur	C	Irr.	3	19	4	5/28	11	9/16	38	13.8	27	5
Amur	C	D.L.	1	14	6	-	9	9/8	29	14.2	24	-
Anisette	A	Irr.	2	16	6	5/26	9	9/4	46	11.5	27	1
Anisette	A	D.L.	3	14	6	5/27	7	9/1	30	11.2	25	1
Anisim	A	Irr.	3	22	6	5/27	16	9/22	35	12.5	29	3
Anisim	A	D.L.	3	19	7	5/25	11	9/22	19	8.1	24	1
Anoka	A	Irr.	2	16	7	5/27	12	9/4	37	11.7	29	1
Anoka	A	D.L.	4	17	6	5/28	10	9/2	38	11.2	28	5
Antonovka	A	Irr.	3	13	7	5/28	11	9/22	45	14.7	28	1
Antonovka	A	D.L.	2	15	6	5/29	11	9/17	43	12.0	27	-

See footnote at end of table, p. 23.

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Bailey Sweet	A	D.L.	3	7	11	-	2	9/29	2	6.7	27	-
Bayfield	A	Irr.	3	13	9	5/28	6	9/16	29	15.9	29	4
Bayfield	A	D.L.	3	14	9	5/28	5	9/12	19	12.3	28	1
Beacon	A	Irr.	2	8	8	5/29	4	9/25	4	10.3	22	4
Beauty	C	Irr.	3	20	4	5/26	12	9/24	40	14.1	27	1
Beauty	C	D.L.	3	17	5	5/27	7	9/13	35	14.8	26	-
Bedford	C	Irr.	2	17	5	5/28	10	9/23	76	13.1	25	1
Bedford	C	D.L.	2	17	4	5/27	10	9/19	75	12.5	22	-
Ben Davis	A	Irr.	2	15	7	5/29	8	9/28	24	18.1	28	5
Ben Davis	A	D.L.	2	12	9	5/29	8	10/3	16	14.5	26	1
Benoni	A	Irr.	1	-	-	-	-	-	-	9.6	28	-
Bilek Winter	A	Irr.	2	14	8	-	7	9/25	8	12.4	26	1
Bismark	A	Irr.	1	1	8	-	-	-	-	-	-	-
Bismark	A	D.L.	1	15	6	-	7	9/21	14	11.4	27	4
Black Ben Davis	A	D.L.	2	10	10	-	5	9/22	11	14.0	27	1
Black Mack	A	Irr.	3	14	9	5/27	7	9/29	9	13.3	27	3
Black Mack	A	D.L.	1	14	9	5/28	7	10/2	5	13.0	27	1
Blue Permain	A	Irr.	1	2	21	-	1	9/20	10	-	-	2
Blushed Calville	A	Irr.	3	19	6	5/28	13	8/30	47	12.4	28	5
Blushed Calville	A	D.L.	3	13	9	5/28	8	8/23	24	10.2	27	2
Brands Imperial	A	Irr.	1	16	7	5/28	3	9/29	2	15.3	26	-
Brands Imperial	A	D.L.	1	13	9	-	3	9/16	3	13.0	24	-
Brands Winter	A	Irr.	1	7	12	-	6	9/28	5	11.2	23	1
Brier Sweet	C	Irr.	1	9	14	-	6	9/27	14	15.9	26	-
Brier Sweet	C	D.L.	3	14	10	-	10	9/21	37	11.2	29	1
Brilliant	A	Irr.	1	18	7	5/29	12	9/26	37	10.4	28	3
Brilliant	A	D.L.	3	15	9	5/29	7	9/27	11	11.8	27	-
Bruce Seedling	A	Irr.	2	13	5	5/30	6	8/25	31	12.7	23	1
Bruce Seedling	A	D.L.	2	8	8	-	3	8/23	10	8.0	19	1
Cathay	C	Irr.	3	19	6	5/26	7	10/3	36	11.5	28	1
Cathay	C	D.L.	2	18	6	5/25	7	10/1	30	10.7	26	1
Charlamoff	A	Irr.	3	14	8	5/27	10	9/8	45	16.1	29	1
Charlamoff	A	D.L.	2	10	10	5/28	6	9/4	43	15.0	29	2
Collins	A	Irr.	1	10	12	-	4	10/2	2	11.4	24	-
Columbia	C	Irr.	3	21	5	-	13	9/24	99	16.7	29	2
Columbia	C	D.L.	1	10	10	-	6	10/5	102	12.0	22	-
Cortland	A	Irr.	3	17	7	5/28	9	9/28	35	13.5	28	2
Cortland	A	D.L.	2	15	9	-	9	9/27	83	13.0	28	-
Crimson Beauty	A	Irr.	7	15	8	5/26	8	8/15	31	14.5	27	3
Crimson Beauty	A	D.L.	6	13	10	5/27	4	8/11	12	10.9	27	1
Dartt Hybrid #1	C	D.L.	3	12	9	-	5	9/19	20	10.4	29	5
Dauphin	C	Irr.	2	14	3	5/28	8	8/30	16	8.9	20	-

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Dauphin	C	D.L.	2	14	4	5/29	7	9/2	59	12.0	19	-
Dee Bee	A	Irr.	3	15	8	5/29	8	9/24	16	16.5	28	4
Dee Bee	A	D.L.	2	3	9	-	-	-	-	7.0	27	-
Delicious	A	D.L.	3	18	8	5/29	8	10/1	9	14.0	27	-
Dolgo	C	Irr.	3	15	8	-	9	9/3	84	16.5	29	1
Dolgo	C	D.L.	3	19	7	5/25	11	9/3	31	11.3	27	1
Duchess	A	Irr.	2	18	5	5/27	12	8/30	50	13.9	26	1
Duchess	A	D.L.	3	19	6	5/27	14	8/29	28	12.2	29	1
Dudley	A	Irr.	3	17	8	5/28	11	9/18	49	15.6	28	2
Dudley	A	D.L.	3	14	8	5/28	6	9/15	8	12.0	26	1
Earlham	A	D.L.	3	11	13	-	4	9/29	12	12.4	29	2
Early Harvest	A	Irr.	1	4	20	-	2	8/13	5	13.6	28	3
Early McIntosh	A	Irr.	3	11	8	5/27	9	9/8	50	13.4	26	2
Early McIntosh	A	D.L.	1	10	7	-	5	9/1	9	14.2	25	1
Early Strawberry	C	Irr.	6	17	7	5/29	11	8/29	19	13.1	27	5
Early Strawberry	C	D.L.	2	11	8	5/28	5	8/26	60	14.0	28	-
Eastman	A	Irr.	3	19	5	5/28	15	9/18	93	15.2	28	3
Eastman	A	D.L.	2	18	6	5/28	11	9/17	58	13.7	28	1
Edgewood	A	D.L.	1	13	9	-	5	9/27	7	12.6	27	-
Elsa	C	Irr.	3	9	6	5/27	9	9/13	58	13.5	28	3
English Coddling	A	D.L.	1	5	6	-	1	-	-	6.0	17	2
Enormous	A	D.L.	1	-	-	-	-	-	-	9.3	23	5
Erickson	A	Irr.	6	19	6	5/27	11	9/5	42	16.6	28	2
Erickson	A	D.L.	3	19	6	5/27	11	9/3	12	12.9	26	3
Fameuse	A	D.L.	1	28	13	-	2	9/20	1	13.0	29	-
Faribault	C	Irr.	3	15	6	5/28	8	10/1	26	15.5	26	2
Faribault	C	D.L.	3	18	7	5/27	10	9/30	49	16.2	27	1
Farnsworth	A	Irr.	2	9	8	5/27	5	9/15	26	13.5	27	2
Farnsworth	A	D.L.	3	15	7	5/28	4	9/12	13	12.2	26	5
Florence	C	Irr.	2	14	7	-	8	9/13	55	11.7	29	4
Florence	C	D.L.	3	21	5	-	13	9/4	63	11.3	28	2
Folwell	A	Irr.	2	13	9	5/27	7	9/19	52	14.3	28	3
Folwell	A	D.L.	2	9	10	5/28	4	9/20	55	15.0	22	1
Forest King	C	Irr.	2	20	5	5/27	13	10/1	44	12.2	28	1
Franz	A	D.L.	2	10	10	-	1	-	1	11.0	28	1
Gano	A	Irr.	2	16	10	5/29	9	10/1	50	14.3	28	4
Gano	A	D.L.	3	16	8	5/29	8	9/23	46	15.2	27	3
Garnet	C	Irr.	3	15	7	5/25	9	9/26	41	12.5	25	-
Garnet	C	D.L.	3	12	8	5/25	6	9/16	36	12.8	21	1
General Grant	C	Irr.	1	13	8	5/29	6	9/19	8	11.3	29	5
General Grant	C	D.L.	1	19	5	-	14	9/21	19	13.0	28	3
George Miller	C	Irr.	1	15	3	-	3	10/1	45	12.3	23	-

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Giant	C	Irr.	2	15	6	5/31	8	10/1	16	13.1	25	1
Giant	C	D.L.	2	4	16	-	2	10/5	2	9.3	21	1
Godfrey	A	Irr.	2	12	8	5/29	8	10/1	52	12.5	23	-
Golden Anniversary	C	Irr.	3	20	5	5/28	13	9/13	49	13.5	28	3
Golden Anniversary	C	D.L.	2	16	7	5/27	9	9/11	45	12.0	28	1
Golden Beauty	A	D.L.	2	12	4	-	3	9/19	10	7.4	27	3
Golden Beauty	A	Irr.	2	3	9	-	-	-	-	-	-	5
Golden Russett	A	D.L.	1	-	-	-	-	-	-	-	-	-
Golden Sweet	A	D.L.	1	3	22	-	1	-	-	11.4	26	-
Golden Winesap	A	D.L.	1	6	18	-	2	10/1	40	11.0	25	-
Goldo	A	Irr.	1	4	10	-	-	-	-	-	-	-
Goldo	A	D.L.	1	15	8	-	10	9/28	27	11.0	26	2
Goodhue	A	Irr.	3	19	7	5/28	12	9/13	50	14.1	29	2
Goodhue	A	D.L.	3	17	8	5/29	11	9/7	69	15.4	28	1
Hansen	C	D.L.	2	16	6	5/27	8	9/19	27	13.9	24	1
Haralson	A	Irr.	1	12	5	-	11	9/23	48	15.6	28	1
Haralson	A	D.L.	3	17	8	5/28	11	9/16	46	12.1	29	1
Harter's Early	A	Irr.	2	13	9	5/27	8	8/15	27	12.5	26	2
Harter's Early	A	D.L.	3	19	7	5/26	14	8/21	30	14.4	27	1
Hawkeye Greening	A	Irr.	3	18	6	5/27	11	10/1	51	11.3	28	3
Hawkeye Greening	A	D.L.	3	18	7	5/27	10	9/30	89	13.7	27	1
Helm	A	Irr.	1	-	-	-	-	-	-	-	-	1
Helm	A	D.L.	1	1	12	-	-	-	-	-	-	-
Henry Clay	A	Irr.	2	10	10	-	5	8/25	20	14.3	23	3
Henry Clay	A	D.L.	2	12	8	5/27	8	8/21	24	14.9	25	-
Hibernal	A	Irr.	3	17	7	5/27	10	9/22	41	15.5	27	2
Hibernal	A	D.L.	2	17	8	5/27	9	9/21	24	13.4	28	1
Hicks Everbearing	A	Irr.	2	18	4	5/29	13	9/23	55	14.3	27	3
Hicks Everbearing	A	D.L.	3	13	6	5/29	7	9/21	12	12.3	26	1
Hyslop	C	Irr.	3	6	9	-	2	9/17	5	-	-	4
Hyslop	C	D.L.	3	6	6	-	2	9/10	11	-	-	4
Iowa Beauty	A	Irr.	2	15	6	5/28	8	9/5	8	13.4	28	1
Iowa Beauty	A	D.L.	3	18	7	5/27	11	9/7	40	15.0	27	-
Iowa Blush	C	Irr.	2	10	8	5/29	6	10/1	13	15.0	27	3
Iowa Blush	C	D.L.	3	12	8	5/29	6	9/25	41	13.0	26	1
Isherwood	A	Irr.	2	14	8	5/29	5	9/28	4	13.7	27	3
Isherwood	A	D.L.	1	17	6	5/29	6	9/24	4	13.0	26	-
Ivan	C	Irr.	2	21	6	5/25	16	9/22	71	14.7	29	1
Ivan	C	D.L.	3	22	7	5/25	13	9/18	48	12.4	29	1
Janet	A	D.L.	1	12	9	-	7	9/29	19	13.0	26	1
Jeffries	A	Irr.	1	5	9	-	2	10/5	1	-	-	3
Jeffries	A	D.L.	2	5	9	-	-	-	-	7.4	27	1

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Jewells Sweet	A	Irr.	1	17	6	5/29	10	9/11	35	14.6	27	1
Jewells Sweet	A	D.L.	2	12	11	5/30	6	9/11	23	11.5	26	-
Jewells Winter	A	Irr.	3	11	8	-	8	9/24	115	13.8	28	3
Jewells Winter	A	D.L.	2	7	13	-	2	9/20	8	12.0	27	1
Joan	A	Irr.	3	18	7	5/28	7	9/25	8	13.4	28	3
Joan	A	D.L.	2	1	9	-	-	-	-	5.4	27	1
Jonsib	C	Irr.	1	14	4	5/25	10	9/18	37	13.6	21	1
Joyce	A	Irr.	2	18	7	5/27	11	9/12	116	13.0	28	2
Joyce	A	D.L.	3	13	8	5/29	6	9/18	51	14.6	27	-
Keo	C	Irr.	1	7	10	-	3	9/25	33	10.9	20	-
Keslage	A	Irr.	1	4	16	-	2	10/1	5	12.0	25	1
Keslage	A	D.L.	1	7	15	-	3	10/7	5	13.0	23	-
King David	C	Irr.	1	9	8	-	3	10/1	9	12.6	28	3
King David	C	D.L.	2	5	13	-	2	10/1	4	9.2	23	2
Kola	C	Irr.	1	16	6	6/1	7	9/23	11	11.6	28	-
Kursk Anis	A	Irr.	3	20	7	5/27	12	8/27	29	13.6	29	1
Lady Jonathan	A	D.L.	1	17	7	5/29	6	10/7	9	13.2	25	-
Linda Sweet	C	Irr.	3	17	6	-	10	9/19	82	15.7	27	1
Linda Sweet	C	D.L.	1	15	7	-	9	9/22	28	13.0	25	-
Liveland	A	Irr.	3	10	10	5/27	8	8/25	10	14.4	28	1
Liveland	A	D.L.	3	10	9	5/27	6	8/26	11	15.0	26	1
Lobo	A	Irr.	2	14	9	5/30	9	9/27	22	14.9	27	1
Lobo	A	D.L.	3	17	9	5/29	13	9/24	29	15.0	28	1
Lodi	A	Irr.	4	12	10	5/29	8	8/31	17	14.8	26	2
Longfield	A	Irr.	3	17	7	5/27	11	9/23	51	13.2	28	3
Longfield	A	D.L.	2	16	8	5/28	11	9/12	42	13.0	27	1
Lord's L	A	Irr.	2	15	6	-	11	9/19	40	13.1	27	1
Lord's L	A	D.L.	3	14	5	5/31	10	9/20	25	12.0	26	3
Lubsk Queen	A	Irr.	1	18	7	5/27	14	9/11	19	14.2	28	2
Lubsk Queen	A	D.L.	2	6	14	-	1	9/7	2	7.9	21	2
Lusovka	A	Irr.	1	4	8	-	2	9/8	1	-	-	-
Lusovka	A	D.L.	1	2	6	-	-	-	-	-	-	-
Lyman Prolific	A	D.L.	1	10	9	-	6	9/8	27	-	-	-
Macoun	A	Irr.	1	4	14	-	2	-	-	13.6	21	-
Macoun	A	D.L.	1	-	-	-	-	-	-	2.0	25	-
Macy	A	D.L.	3	11	12	5/31	7	9/23	23	10.9	28	3
Malinda	A	Irr.	3	10	11	5/30	6	10/5	40	13.5	28	3
Malinda	A	D.L.	2	16	8	5/29	10	9/27	31	11.2	26	-
Mammoth Black Twig	A	D.L.	2	2	16	-	-	-	-	10.0	27	-
Manan	A	Irr.	1	9	11	-	8	9/29	24	14.0	24	1
Manitoba	A	Irr.	2	8	10	5/29	6	10/1	42	13.5	22	-
Manitoba	A	D.L.	1	8	8	-	6	9/24	56	13.7	19	1

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Manitoba Spy	A	Irr.	3	9	9	5/30	7	9/23	29	11.7	22	2
Manitoba Spy	A	D.L.	1	7	9	-	4	9/21	13	12.0	19	-
Manred	A	Irr.	1	12	5	-	3	9/5	8	-	-	5
Mantet	A	Irr.	2	14	7	5/29	11	9/4	50	12.3	26	5
Manton	A	Irr.	1	14	7	-	11	9/26	37	13.4	26	1
Manton	A	D.L.	5	10	7	-	7	9/27	37	13.1	20	1
Martha	C	Irr.	3	19	5	5/27	11	9/19	42	18.5	27	1
Martha	C	D.L.	3	21	4	5/28	12	9/16	41	16.5	26	-
Maud	A	Irr.	2	14	8	5/29	8	9/23	15	13.7	24	1
McIntosh	A	Irr.	1	17	8	-	13	9/26	18	18.5	29	2
McIntosh	A	D.L.	3	18	9	5/27	8	9/28	32	14.5	28	1
McLean	A	D.L.	1	9	13	-	4	9/28	5	13.0	25	-
McMahon	A	Irr.	3	13	7	5/31	10	9/29	23	17.8	29	4
McMahon	A	D.L.	3	11	11	5/30	6	9/25	23	13.2	28	3
McPrince	C	Irr.	3	13	6	5/29	9	9/21	24	14.8	23	1
Mecca	C	Irr.	1	16	5	5/26	9	9/17	40	14.6	24	3
Melba	A	Irr.	3	14	7	-	8	8/31	28	12.2	25	2
Melba	A	D.L.	3	18	7	5/27	11	9/1	29	11.7	28	2
Mercer	C	Irr.	2	18	5	5/29	8	9/24	30	13.8	25	1
Mercer	C	D.L.	1	14	5	5/29	7	9/30	17	15.3	21	1
Meyers Seedling	A	Irr.	1	12	6	-	6	9/16	15	14.2	25	3
Michigan	C	Irr.	1	19	4	5/28	11	9/7	36	14.3	25	4
Michigan	C	D.L.	2	14	6	-	6	9/1	17	12.3	24	-
Milton	A	Irr.	2	12	8	5/29	8	9/18	31	16.0	27	2
Milton	A	D.L.	3	13	9	5/29	8	9/15	22	12.4	26	-
Milwaukee	A	Irr.	2	18	6	5/28	13	9/23	45	16.7	28	2
Milwaukee	A	D.L.	3	18	6	5/28	11	9/26	38	12.3	26	-
Minjon	A	Irr.	1	8	14	-	6	10/3	6	12.6	25	1
Minnehaha	A	Irr.	3	13	10	5/29	9	9/27	59	15.4	28	2
Minnehaha	A	D.L.	3	7	15	5/28	3	9/25	23	10.8	26	-
Minnesota	A	Irr.	2	16	7	5/27	8	9/27	9	12.5	26	2
Minnesota	A	D.L.	2	12	9	-	10	9/15	56	13.3	27	2
Minn. 18	A	Irr.	1	17	6	5/29	14	9/20	39	11.6	27	1
Minn. 36	A	Irr.	1	19	6	5/28	14	9/12	49	13.6	27	-
Minn. 41	A	Irr.	2	14	8	5/28	6	9/9	20	11.0	25	-
Minn. 41	A	D.L.	1	7	11	-	1	9/8	1	7.0	20	-
Minn. 49	-	Irr.	1	2	11	-	1	9/7	2	-	-	3
Minn. 162	A	Irr.	3	12	6	5/29	7	9/9	41	11.7	23	3
Minn. 162	A	D.L.	1	12	6	5/29	8	9/7	14	11.0	19	-
Minn. 189	A	Irr.	1	17	8	5/27	10	9/25	30	12.6	27	-
Minn. 217	A	Irr.	1	18	6	5/27	9	9/21	25	12.0	27	1
Minn. 233	-	Irr.	1	15	7	-	9	9/16	40	9.1	27	3

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Minn. 269	-	Irr.	1	17	8	5/28	7	9/21	7	12.2	27	-
Minn. 275	-	Irr.	1	11	7	5/28	7	9/2	19	12.6	27	2
Minn. 303	-	Irr.	1	15	7	5/29	8	8/27	19	10.6	27	-
Minn. 305	A	Irr.	1	16	5	-	14	9/10	49	13.4	27	1
Minn. 305	A	D.L.	2	11	5	-	6	9/5	57	14.3	20	1
Minn. 307	A	Irr.	1	19	6	5/27	14	9/8	22	9.9	27	-
Minn. 308	A	Irr.	1	15	5	-	12	9/9	69	10.6	27	1
Minn. 308	A	D.L.	1	2	10	-	1	9/8	1	-	-	-
Minn. 314	A	Irr.	1	14	10	5/30	10	9/17	64	16.6	27	1
Minn. 324	-	Irr.	1	14	8	-	9	9/20	11	9.9	27	1
Minn. 324	-	D.L.	1	-	-	-	-	-	-	8.0	21	-
Minn. 340	A	Irr.	1	18	6	5/29	12	9/29	49	13.9	27	-
Minn. 341	-	Irr.	1	16	8	-	10	9/23	23	11.4	27	1
Minn. 345	A	Irr.	1	11	14	5/29	9	9/14	8	11.6	27	3
Minn. 354	C	Irr.	1	16	7	-	12	9/24	44	10.7	27	-
Minn. 359	A	Irr.	1	18	6	5/28	12	9/19	11	10.3	27	-
Minn. 360	A	Irr.	2	7	14	-	5	9/20	48	12.0	25	2
Minn. 365	A	Irr.	2	15	8	6/2	9	9/30	18	12.5	26	3
Minn. 365	A	D.L.	2	9	6	-	6	9/29	17	10.7	23	1
Minn. 370	A	Irr.	2	11	10	5/28	9	9/15	38	10.9	25	-
Minn. 389	A	Irr.	1	12	11	-	8	9/19	26	11.6	27	1
Minn. 399	-	Irr.	1	7	8	-	2	9/23	1	-	-	2
Minn. 412	A	Irr.	1	6	9	-	4	10/2	26	-	-	5
Minn. 416	-	Irr.	1	14	8	5/29	9	9/16	26	14.2	27	1
Minn. 416	-	D.L.	1	6	10	-	3	8/27	10	13.0	20	-
Minn. 419	A	Irr.	3	5	15	-	4	8/28	16	10.7	24	2
Minn. 419	A	D.L.	1	3	17	-	3	9/10	10	14.0	21	-
Minn. 435	-	Irr.	1	5	8	-	1	9/15	1	8.4	27	4
Minn. 435	-	D.L.	1	-	-	-	-	-	-	12.4	20	-
Minn. 442	A	Irr.	1	17	6	5/29	10	9/23	7	9.1	27	-
Minn. 447	A	Irr.	2	15	8	5/28	10	9/14	26	12.3	27	2
Minn. 468	-	Irr.	1	17	7	5/29	12	9/28	5	13.6	27	2
Minn. 481	A	Irr.	1	12	8	-	4	9/9	11	8.2	27	1
Minn. 495	A	Irr.	1	14	9	5/28	8	9/7	17	13.6	27	3
Minn. 526	A	Irr.	1	11	8	-	8	9/7	8	12.6	27	1
Minn. 526	A	D.L.	1	4	4	-	1	9/11	7	10.0	19	-
Minn. 625	-	Irr.	1	-	-	-	-	-	-	-	-	-
Minn. 640	A	Irr.	1	16	8	5/28	9	9/22	27	13.6	27	2
Minn. 643	-	Irr.	1	-	-	-	-	-	-	-	-	-
Minn. 644	A	D.L.	1	7	10	-	3	9/25	20	14.0	20	3
Minn. 647	-	Irr.	1	17	8	5/28	8	9/24	8	10.5	27	-
Minn. 650	A	Irr.	1	6	16	-	3	10/1	6	10.1	27	2

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Minn. 654	A	Irr.	1	12	8	-	5	9/18	41	10.6	27	1
Minn. 656	A	Irr.	1	14	8	5/31	5	10/1	14	10.9	27	3
Minn. 657	-	Irr.	1	-	-	-	-	-	-	7.6	27	-
Minn. 658	A	Irr.	1	15	8	6/1	5	9/23	4	9.3	27	4
Minn. 662	-	Irr.	1	5	20	-	1	-	-	9.1	27	-
Minn. 666	A	Irr.	2	10	11	5/31	7	9/17	16	11.9	24	2
Minn. 667	A	Irr.	1	17	7	5/29	10	9/24	14	14.5	27	1
Minn. 669	A	Irr.	1	15	6	5/31	9	10/1	14	9.9	27	3
Minn. 670	-	Irr.	1	15	8	5/29	11	9/25	40	10.2	27	1
Minn. 671	A	Irr.	1	14	8	5/29	9	9/21	39	11.0	27	1
Minn. 682	A	Irr.	1	9	14	-	9	9/26	15	10.9	27	1
Minn. 683	C	Irr.	1	9	14	-	3	10/1	7	10.6	27	2
Minn. 688	A	Irr.	1	19	5	5/30	13	9/28	24	9.2	27	1
Minn. 699	A	Irr.	1	15	8	5/30	9	10/1	23	11.0	27	2
Minn. 701	-	Irr.	1	14	8	5/30	10	9/26	14	13.6	27	-
Minn. 702	A	Irr.	2	10	11	5/28	6	9/15	9	12.9	24	1
Minn. 704	A	Irr.	1	19	6	5/29	11	9/18	43	13.4	27	2
Minn. 705	-	Irr.	1	10	14	5/28	8	9/7	7	12.6	27	1
Minn. 710	A	Irr.	1	11	10	-	6	9/25	12	12.6	27	-
Minn. 713	-	Irr.	1	7	15	-	4	9/13	5	13.6	27	1
Minn. 719	A	Irr.	1	15	7	5/29	11	9/12	10	11.5	27	1
Minn. 720	A	Irr.	1	16	8	5/29	9	9/11	12	11.6	27	2
Minn. 726	A	Irr.	1	17	6	5/30	11	9/18	74	12.3	27	1
Minn. 730	A	Irr.	2	8	11	-	6	9/28	7	11.4	24	1
Minn. 730	A	D.L.	1	11	8	5/27	6	9/20	17	12.0	20	1
Minn. 735	A	Irr.	1	16	8	5/28	11	10/3	19	11.4	27	1
Minn. 740	A	Irr.	1	11	7	-	5	9/28	28	7.5	27	2
Minn. 755	-	Irr.	1	10	8	-	2	9/22	7	9.6	27	-
Minn. 756	A	Irr.	1	15	8	5/28	10	9/19	38	12.6	27	1
Minn. 771	-	Irr.	1	6	8	-	4	9/25	5	9.1	27	2
Minn. 780	A	Irr.	1	15	8	5/27	10	9/14	17	12.6	27	-
Minn. 780	A	D.L.	1	10	5	-	4	9/5	11	14.7	20	-
Minn. 792	A	Irr.	1	14	8	5/28	8	9/28	55	11.2	27	2
Minn. 794	A	Irr.	1	18	7	5/29	12	9/26	13	10.4	27	1
Minn. 796	A	Irr.	1	14	8	5/29	3	9/20	2	12.6	27	-
Minn. 801	-	Irr.	1	11	9	-	5	10/4	1	10.1	27	3
Minn. 806	A	Irr.	1	16	6	6/1	5	9/20	5	12.6	26	1
Minn. 814	-	Irr.	1	15	7	6/1	3	9/30	2	12.6	27	1
Minn. 815	A	Irr.	1	15	7	5/30	13	9/27	14	13.2	27	1
Minn. 816	A	Irr.	1	13	8	5/31	10	9/29	30	12.2	27	2
Minn. 820	A	Irr.	1	10	8	-	7	10/3	36	11.2	27	4
Minn. 843	-	Irr.	1	-	-	-	-	-	-	13.2	27	2

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Minn. 848	A	Irr.	2	5	13	-	4	10/5	21	11.3	24	1
Minn. 859	A	Irr.	3	8	13	-	5	10/3	15	11.6	26	1
Minn. 863	A	Irr.	1	9	8	-	8	10/2	44	14.4	27	-
Minn. 871	A	Irr.	1	14	8	-	9	9/29	21	14.1	27	2
Minn. 874	A	Irr.	1	12	10	-	9	9/26	34	11.9	27	1
Minn. 876	-	Irr.	2	8	14	5/29	6	9/30	47	13.5	24	1
Minn. 877	A	Irr.	1	14	8	5/28	8	10/5	14	12.6	27	-
Minn. 877	A	D.L.	2	4	16	-	2	10/5	4	12.3	20	1
Minn. 878	A	Irr.	1	10	15	-	4	9/20	3	10.6	27	2
Minn. 880	A	Irr.	1	14	6	5/31	10	9/29	19	12.8	26	-
Minn. 891	A	Irr.	1	10	14	5/28	5	10/3	19	11.1	27	3
Minn. 892	A	Irr.	1	11	8	-	8	9/28	66	10.9	27	1
Minn. 892	A	D.L.	1	2	15	-	2	9/25	10	10.2	19	-
Minn. 907	A	Irr.	1	11	9	5/31	6	10/7	5	11.1	27	-
Minn. 908	-	Irr.	1	11	--	5/28	-	-	-	12.6	27	-
Minn. 916	-	Irr.	1	6	15	-	1	9/12	15	11.6	27	-
Minn. 927	A	Irr.	1	15	8	6/2	11	10/3	19	10.1	27	1
Minn. 931	-	Irr.	1	13	10	-	5	8/30	10	11.1	27	1
Minn. 933	A	Irr.	1	15	7	5/31	4	9/13	4	14.0	27	1
Minn. 949	-	Irr.	1	9	9	-	5	9/29	12	12.9	27	1
Minn. 953	-	Irr.	1	2	10	-	-	-	-	7.5	27	-
Minn. 958	-	Irr.	1	-	-	-	-	-	-	9.2	27	-
Minn. 963	A	Irr.	1	10	14	-	6	10/7	13	13.2	27	1
Minn. 966	A	Irr.	1	14	8	5/29	8	9/9	20	13.0	27	1
Minn. 983	-	Irr.	1	8	8	-	2	9/8	3	11.4	27	2
Minn. 983	-	D.L.	1	-	-	-	-	-	-	-	-	-
Minn. 984	-	Irr.	1	9	14	-	5	10/3	4	12.9	27	-
Minn. 985	A	Irr.	1	12	9	5/31	9	10/5	28	10.6	27	-
Minn. 986	A	Irr.	1	16	7	5/29	11	9/21	9	13.2	27	-
Minn. 987	A	Irr.	1	9	16	-	5	10/1	6	12.0	27	2
Minn. 997	A	Irr.	2	13	8	5/28	9	9/28	37	10.8	24	5
Minn. 1010	-	Irr.	1	7	10	-	1	-	-	9.0	27	1
Minn. 1016	A	Irr.	1	14	9	-	6	9/29	8	12.0	27	2
Minn. 1018	A	Irr.	1	5	18	-	3	9/25	13	12.6	27	4
Minn. 1020	-	Irr.	1	2	14	-	1	10/4	5	11.9	27	1
Minn. 1022	-	Irr.	1	12	8	-	3	9/23	12	12.4	27	1
Minn. 1023	-	Irr.	1	3	14	-	1	-	-	12.4	27	2
Minn. 1024	A	Irr.	1	17	7	5/28	11	9/26	39	12.9	27	1
Minn. 1026	-	Irr.	1	5	13	-	3	9/25	1	13.5	23	2
Minn. 1027	-	Irr.	1	2	17	-	1	-	-	12.6	21	-
Minn. 1029	-	Irr.	1	3	16	-	-	-	-	11.7	21	-
Minn. 1031	A	Irr.	1	9	14	-	5	9/2	116	11.1	27	1

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Minn. 1049	A	Irr.	2	12	4	5/29	5	9/18	19	13.7	21	1
Minn. 1068	A	Irr.	1	11	8	5/30	8	9/21	38	13.0	21	-
Minn. 1103	A	Irr.	1	10	9	-	8	9/1	24	14.4	21	1
Minn. 1106	A	Irr.	1	11	8	5/30	4	9/18	10	8.9	21	-
Minn. 1140	A	Irr.	2	10	7	5/29	7	9/15	21	16.3	21	1
Minn. 1142	A	Irr.	1	10	9	-	8	9/23	34	14.0	21	-
Minn. 1149	A	Irr.	2	5	12	-	4	9/15	21	14.7	21	-
Minn. 1168	A	Irr.	1	12	7	-	8	9/27	26	10.2	21	5
Minn. 1182	A	Irr.	1	7	10	-	6	9/25	26	11.9	21	-
Minn. 1196	-	Irr.	1	5	14	-	-	-	-	11.2	21	-
Minn. 1196	-	D.L.	1	9	10	-	3	9/10	8	10.0	20	1
Minn. 1204	-	Irr.	1	9	10	-	2	9/5	5	12.4	27	1
Minn. 1206	-	Irr.	1	2	16	-	2	9/5	50	12.6	21	-
Minn. 1209	A	Irr.	1	9	8	-	2	9/25	3	12.6	21	-
Minn. 1210	A	Irr.	1	15	7	5/30	6	10/3	7	11.6	27	2
Minn. 1216	A	Irr.	1	11	9	-	5	9/20	8	11.9	27	-
Minn. 1228	A	Irr.	1	13	8	5/30	9	9/24	9	9.4	27	2
Minn. 1229	A	Irr.	1	15	8	5/30	5	9/26	4	10.9	27	2
Minn. 1231	-	Irr.	1	8	14	-	-	-	-	9.3	27	5
Minn. 1236	A	Irr.	2	12	8	-	10	9/27	53	14.6	24	-
Minn. 1236	A	D.L.	1	9	9	-	7	10/2	41	7.0	20	-
Minn. 1243	A	Irr.	3	8	10	-	4	9/14	18	11.4	21	3
Minn. 1280	-	Irr.	1	3	12	-	-	-	-	8.4	21	-
Minn. 1281	A	Irr.	1	7	11	-	5	9/15	12	13.0	21	-
Minn. 1301	A	D.L.	1	3	16	-	2	9/28	3	-	-	1
Minn. 1311	A	Irr.	2	7	11	-	4	9/11	10	12.3	21	1
Minn. 1312	A	Irr.	2	8	8	-	4	9/17	3	12.6	21	1
Minn. 1314	A	Irr.	1	7	11	-	3	9/5	7	10.4	21	1
Minn. 1315	-	Irr.	1	4	14	-	2	-	-	15.6	21	1
Minn. 1332	A	Irr.	1	10	9	-	4	9/20	8	14.2	21	-
Minn. 1332	A	D.L.	1	10	9	-	7	9/28	6	12.0	20	-
Minn. 1334	A	Irr.	1	10	9	-	6	9/25	5	10.6	21	2
Minn. 1336	A	Irr.	1	7	10	-	3	9/15	4	13.0	21	1
Minn. 1351	-	Irr.	1	6	12	-	3	9/25	12	12.4	21	5
Minn. 1354	-	Irr.	1	-	-	-	-	-	-	7.2	21	-
Minn. 1364	-	Irr.	3	5	12	-	3	9/13	19	13.8	21	-
Minn. 1370	-	Irr.	1	5	14	-	3	9/25	25	12.6	21	1
Minn. 1374	-	Irr.	1	7	13	-	2	9/22	5	13.6	24	3
Minn. 1397	C	Irr.	1	7	9	-	3	10/9	8	9.0	19	-
Minn. 1405	A	Irr.	1	6	12	-	2	9/19	2	10.4	21	-
Minn. 1408	-	Irr.	1	4	10	-	2	9/26	15	11.0	21	-
Minn. 1409	A	Irr.	1	11	8	-	9	10/7	23	12.9	21	-

Table 1.— Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Minn. 1417	-	Irr.	1	10	5	-	7	9/24	13	15.4	21	-
Minn. 1422	A	Irr.	1	6	9	-	3	9/20	2	12.2	21	-
Minn. 1423	A	Irr.	2	5	15	-	3	9/21	4	12.0	21	-
Minnetonka	A	Irr.	2	7	16	-	6	9/25	16	11.6	25	1
Minnetonka	A	D.L.	1	3	20	-	2	9/25	2	11.4	24	-
Missouri Hybrid	C	Irr.	1	14	6	6/1	7	10/6	9	11.7	23	-
Monona	A	D.L.	2	16	11	5/27	10	9/27	26	12.3	29	3
Montreal Beauty	C	Irr.	2	15	7	5/27	8	9/8	60	13.1	26	1
Morden 5006-I-8	A	Irr.	1	12	9	5/28	6	9/30	43	15.7	26	2
Morden 5008-I-2	A	Irr.	2	6	17	-	3	9/25	7	13.4	26	1
Morden 5008-I-2	A	D.L.	1	3	3	-	1	9/11	2	10.2	24	1
Morden 5018-G-11	A	Irr.	2	16	9	5/25	8	9/9	26	14.1	26	1
Morden 5025-C-13	A	Irr.	3	14	7	5/30	10	9/2	59	14.7	26	3
Morden 5025-C-13	A	D.L.	1	3	18	-	2	8/24	2	11.0	24	1
Morden 5029-E-1	A	Irr.	1	17	7	5/27	11	9/24	51	15.3	26	2
Morden 5029-F-1	A	Irr.	1	3	19	-	2	9/20	1	11.6	24	-
Morden 5029-I-1	A	Irr.	1	10	10	-	4	9/19	2	9.1	26	5
Morden 5030-I-34	A	Irr.	2	7	12	-	5	9/20	14	13.1	26	2
Morden 5030-I-34	A	D.L.	1	5	8	-	3	9/18	3	14.8	24	-
Morden 5030-I-91	A	Irr.	3	12	9	5/30	7	9/8	22	11.4	26	3
Morden 5030-I-91	A	D.L.	1	-	-	-	-	-	-	9.7	22	-
Morden 5035-C-5	A	Irr.	1	15	5	5/26	8	8/30	21	10.8	23	1
Morden 5035-C-10	A	Irr.	1	9	10	-	6	9/18	27	13.0	22	2
Morden 5035-C-15	A	Irr.	1	15	5	5/28	9	9/23	31	13.6	23	4
Morden 5035-C-29	A	Irr.	3	15	5	5/28	9	9/21	17	10.8	23	3
Morden 5035-E-79	A	Irr.	2	13	9	5/27	7	9/23	30	14.1	24	1
Morden 5035-E-175	A	Irr.	1	16	3	5/29	12	9/24	56	13.3	24	1
Morden 5035-I-54	A	Irr.	2	2	20	-	1	-	-	12.1	26	-
Morden 5035-I-54	A	D.L.	2	-	-	-	-	-	-	7.5	24	-
Morden M-310	A	Irr.	2	9	12	-	6	9/4	29	13.3	23	2
Morden M-312	A	Irr.	1	15	4	-	8	9/9	51	13.2	24	-
Morden M-317	A	Irr.	1	10	12	-	6	9/24	5	11.6	24	1
Morden M-318	A	Irr.	1	2	20	-	1	-	-	11.6	24	2
Morden M-340	C	Irr.	1	11	8	-	6	9/27	42	16.8	24	3
Morden Unknown	A	Irr.	1	14	8	-	9	9/17	32	14.5	29	3
Moris	A	Irr.	2	9	12	5/28	7	9/9	43	16.5	23	1
Moris	A	D.L.	1	8	9	-	5	9/10	17	13.0	21	-
Mortof	A	Irr.	1	13	7	5/30	9	9/4	5	12.2	24	1
Mortof	A	D.L.	1	9	8	-	6	9/24	25	13.8	19	-
Moscow Pear	A	Irr.	2	11	7	5/27	7	9/3	24	11.5	20	1
Nebraska Golden	A	D.L.	1	12	8	-	4	9/30	7	10.2	27	1
Nelson Sweet	A	Irr.	2	10	12	5/29	7	10/4	9	11.4	28	1

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3) no.	(4) years	(5) years	(6) date	(7) years	(8) date	(9) lbs.	(10) feet	(11) years	(12) no.
Nelson Sweet	A	D.L.	2	4	18	-	1	9/30	8	11.5	27	1
Nero	A	Irr.	1	10	6	-	3	10/1	2	12.1	26	3
Nero	A	D.L.	1	14	7	5/28	4	10/3	10	15.0	25	3
Newells Winter	A	Irr.	2	13	12	5/28	5	10/5	9	13.3	27	2
Newells Winter	A	D.L.	3	11	8	-	4	9/28	20	12.5	26	1
Nichner	A	Irr.	3	10	10	5/28	6	9/7	22	11.7	28	1
Nichner	A	D.L.	3	12	12	5/28	6	9/4	33	11.0	27	1
Nipissing	C	Irr.	2	9	9	-	5	10/3	93	13.3	23	-
No Name	A	Irr.	2	10	11	5/26	6	9/30	33	12.3	24	1
No Name	A	D.L.	2	9	7	5/26	4	10/1	13	11.5	22	2
N.W. Greening	A	Irr.	1	13	9	5/31	10	10/3	13	13.9	29	3
N.W. Greening	A	D.L.	3	14	9	5/31	7	10/2	19	14.0	28	2
Ogden	A	D.L.	1	2	21	-	1	-	-	9.6	25	-
Okabena	A	Irr.	5	17	6	5/29	13	9/11	46	12.3	28	2
Okabena	A	D.L.	3	14	8	5/29	10	9/12	36	12.5	29	2
Olga	C	Irr.	3	21	4	5/30	15	9/22	65	14.8	28	2
Olga	C	D.L.	3	19	7	-	13	9/14	47	11.2	29	2
Orange	A	D.L.	1	18-	5	-	5	9/15	14	12.0	27	5
Osman	C	Irr.	2	16	9	5/26	10	9/19	67	16.3	27	1
Osman	C	D.L.	2	14	8	5/25	9	9/14	32	12.0	23	1
Ostem	A	Irr.	2	8	11	5/30	5	10/4	6	10.8	23	3
Ostrakoff	A	Irr.	1	16	5	5/29	10	9/23	5	9.4	24	2
Owatonna	A	Irr.	1	20	5	5/28	14	9/18	54	13.2	29	1
Owatonna	A	D.L.	3	5	12	-	4	9/24	19	12.5	24	—
Paducah	A	D.L.	1	13	7	5/31	8	9/24	20	13.0	25	-
Palas	A	Irr.	3	16	6	5/28	10	9/26	19	12.7	24	5
Palas	A	D.L.	2	7	12	-	4	9/30	11	12.8	23	2
Patricia	A	Irr.	2	8	11	-	7	9/17	34	12.7	23	1
Patten Greening	A	Irr.	3	13	7	5/31	10	9/22	70	15.3	28	2
Patten Greening	A	D.L.	2	18	7	5/28	12	9/18	70	14.5	28	1
Patten 1001	A	Irr.	1	12	9	-	8	10/1	15	13.6	26	-
Patten 1013	A	Irr.	3	11	7	5/29	8	9/23	44	11.0	26	4
Patten 1033	A	Irr.	2	8	15	-	5	9/28	15	11.7	26	3
Patten 1034	A	Irr.	1	13	8	5/31	9	9/28	18	11.6	26	1
Patten 1045	A	Irr.	2	14	8	5/29	9	9/27	28	15.7	26	2
Patten 1045	A	D.L.	2	9	14	-	4	9/29	8	15.4	26	1
Patten 1049	A	Irr.	4	13	7	5/28	7	9/21	11	15.5	23	3
Patten 1058	A	Irr.	1	14	6	5/29	9	9/20	9	13.9	26	1
Patten 1059	A	Irr.	1	10	13	-	6	10/7	3	13.6	26	2
Patten 1059	A	D.L.	1	7	13	-	2	9/27	10	12.0	21	-
Patten 1060	A	Irr.	1	9	10	-	4	9/29	4	11.9	26	2
Patten 1061	A	Irr.	1	9	8	-	4	9/13	12	12.6	22	1

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Patten 1061	A	D.L.	1	5	14	-	2	9/3	17	9.9	20	3
Patten 1062	A	Irr.	2	16	6	5/29	7	9/28	26	15.5	26	3
Patten 1063	A	Irr.	1	8	11	-	2	10/1	2	11.3	23	2
Peach of Montreal	A	Irr.	2	9	9	-	5	9/14	28	14.2	23	3
Peerless	A	Irr.	3	11	10	5/29	8	9/19	19	12.3	27	1
Peerless	A	D.L.	2	7	16	-	5	9/14	4	11.3	27	-
Perkins	A	Irr.	1	7	6	-	2	9/19	1	9.9	26	3
Perkins	A	D.L.	3	14	10	5/29	10	9/24	11	11.5	27	3
Perkins 72	A	Irr.	1	10	15	-	3	9/25	8	12.6	27	3
Perkins 72	A	D.L.	2	10	8	-	4	10/1	27	12.9	26	3
Peter	A	Irr.	1	10	8	-	7	9/17	17	14.2	27	-
Peter	A	D.L.	2	9	8	5/29	4	9/28	43	11.3	26	1
Petrel	A	Irr.	2	14	6	5/25	9	9/3	25	11.3	23	1
Pewaukee	A	D.L.	1	6	13	-	2	9/20	1	11.0	25	-
Pichas Winesap	A	Irr.	1	-	-	-	-	-	-	6.7	26	-
Pinegrove Red	A	Irr.	3	19	6	5/27	8	9/30	10	13.3	29	1
Pinegrove Red	A	D.L.	2	2	13	-	-	-	-	9.0	24	1
Plumb Cider	A	D.L.	1	10	6	-	6	9/27	11	15.0	18	-
Prairie Spy	A	Irr.	1	10	12	5/30	6	10/1	9	12.6	25	2
Prices Sweet	A	Irr.	2	20	5	5/29	11	9/23	21	15.9	28	2
Prices Sweet	A	D.L.	2	20	7	5/29	10	9/13	12	11.7	29	4
Prince	A	Irr.	1	4	9	-	2	9/7	13	-	-	3
Printosh	C	Irr.	1	4	16	-	2	8/16	1	14.2	25	-
Printosh	C	D.L.	1	2	17	-	-	-	-	-	-	-
Ramsdell Sweet	A	D.L.	2	11	8	-	4	9/28	8	11.0	26	-
R & K 91-9912	A	Irr.	1	3	12	-	2	9/5	2	12.4	24	-
Redant	A	Irr.	2	10	11	-	6	9/6	43	12.8	23	-
Red Astrachan	A	Irr.	1	7	17	-	5	8/21	11	16.8	28	3
Red Astrachan	A	D.L.	2	7	17	-	3	8/27	13	13.0	28	1
Red Beitigheimer	A	Irr.	1	4	15	-	2	9/30	10	11.9	26	1
Red Beitigheimer	A	D.L.	3	4	17	-	2	10/7	37	12.3	26	1
Red Cheek Pippin	A	Irr.	1	2	14	-	-	-	-	9.1	26	3
Red Cheek Pippin	A	D.L.	2	12	7	5/29	3	9/19	5	14.5	25	-
Red Duchess	A	Irr.	3	19	6	5/28	14	9/1	27	12.9	28	1
Red Duchess	A	D.L.	3	18	6	5/29	12	8/27	54	12.2	27	1
Red Flesh	C	Irr.	3	19	6	5/31	14	9/24	48	12.2	28	2
Red Flesh	C	D.L.	2	11	14	-	6	9/27	18	12.0	27	-
Red Flesh S.D. #1	A	Irr.	1	2	19	-	2	9/20	20	12.3	23	4
Red Flesh S.D. #2	C	Irr.	1	10	11	-	7	9/25	26	13.6	23	1
Red Flesh S.D. #3	C	Irr.	1	10	6	-	8	9/18	22	16.7	23	-
Red Flesh S.D. #4	C	Irr.	1	8	12	-	4	9/16	59	11.3	23	-
Red Flesh S.D. #5	C	Irr.	1	4	17	-	3	9/30	10	12.3	23	-

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Red Flesh S.D. #10	C	Irr.	2	9	12	-	6	9/10	22	15.5	23	3
Red Flesh S.D. #13	C	Irr.	1	13	5	5/29	8	9/14	67	16.4	23	-
Red Flesh S.D. #14	C	Irr.	1	11	7	-	8	9/28	14	12.1	23	1
Red Flesh S.D. #15	C	Irr.	1	17	4	5/27	10	9/29	10	12.1	23	-
Red Flesh S.D. #19	C	Irr.	2	12	7	5/26	6	9/27	9	12.7	23	2
Red June	A	Irr.	1	5	12	-	2	-	-	13.6	28	3
Red June	A	D.L.	2	5	11	-	4	8/16	6	11.0	27	5
Red Sauce	A	D.L.	2	3	16	-	-	-	-	10.0	25	5
Red Siberian	C	Irr.	3	9	10	-	3	9/25	52	15.9	25	5
Red Siberian	C	D.L.	3	11	7	-	7	9/16	67	14.0	27	2
Red Wing	A	Irr.	2	11	14	5/29	8	9/16	20	13.7	27	1
Red Wing	A	D.L.	2	10	15	5/30	6	9/17	17	11.0	27	1
Repka Kislaga	A	Irr.	2	15	9	5/27	8	8/21	37	12.7	26	1
Rhoda	A	Irr.	3	9	10	-	7	9/28	52	12.4	28	1
Rhoda	A	D.L.	3	11	10	-	8	9/27	95	12.7	27	-
Richared Delicious	A	D.L.	1	5	13	-	1	10/6	1	-	-	-
Robin	C	Irr.	2	22	4	5/29	12	9/21	27	10.7	29	5
Rosella	-	D.L.	1	-	-	-	-	-	-	7.7	24	-
Rosilda	C	Irr.	3	12	6	-	8	9/5	56	14.4	24	5
Salome	A	Irr.	1	3	8	-	-	-	-	-	-	3
Salome	A	D.L.	3	7	15	-	5	10/4	21	13.0	27	-
Saska	C	Irr.	2	10	7	-	7	9/27	13	10.2	27	2
Saska	C	D.L.	1	14	8	-	11	9/27	56	11.0	29	3
Scott Winter	A	D.L.	1	13	7	-	4	9/30	6	13.6	27	2
Secor	A	Irr.	3	10	11	-	5	9/25	13	12.5	27	3
Secor	A	D.L.	3	15	9	5/29	6	9/26	10	11.3	28	3
Semla	A	Irr.	1	4	14	-	1	9/25	15	12.0	20	-
Senator	A	D.L.	2	5	19	-	2	9/25	3	11.0	25	2
Sharon	A	Irr.	1	19	8	5/27	10	9/26	64	16.4	29	1
Sharon	A	D.L.	2	16	9	5/26	10	9/28	36	14.5	27	1
Sheriff	A	Irr.	1	18	6	5/30	7	9/25	9	16.4	29	4
Sheriff	A	D.L.	3	15	9	5/30	7	10/4	12	14.5	28	1
Shield	C	Irr.	2	13	7	-	7	9/27	83	16.0	26	2
Shield	C	D.L.	3	13	7	5/28	6	10/2	90	16.8	25	5
Shockley	A	Irr.	3	13	7	5/31	7	9/27	21	16.0	26	4
Shockley	A	D.L.	3	13	8	5/29	8	9/24	31	15.3	25	1
Silas Wilson	A	Irr.	3	12	8	5/31	6	9/24	7	14.1	27	3
Silas Wilson	A	D.L.	3	11	8	5/31	7	9/28	34	12.3	26	1
Silvia	C	Irr.	1	5	12	-	1	-	-	-	-	-
Simbirsk	A	Irr.	3	16	8	5/28	10	9/6	19	13.9	29	3
Simbirsk	A	D.L.	1	1	13	-	-	-	-	8.9	24	-
Simbirsk Malus	C	Irr.	1	17	4	5/27	6	9/13	46	16.4	23	3

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Soulard	C	D.L.	2	16	9	-	7	9/27	42	13.5	29	2
Spangelo	A	Irr.	1	9	8	-	4	9/15	5	11.5	18	-
Spangelo	A	D.L.	3	4	12	-	3	8/29	6	-	-	5
Stark	A	D.L.	2	1	18	-	-	-	-	10.2	22	5
Starking	A	Irr.	2	15	8	5/29	6	10/1	6	12.6	26	2
Steele's Red	A	D.L.	2	-	-	-	-	-	-	10.1	18	-
Stevenson	A	Irr.	2	12	8	5/29	6	10/4	33	13.7	23	1
St. Lawrence	A	Irr.	2	7	18	-	5	9/16	13	12.0	26	3
St. Lawrence	A	D.L.	2	2	22	-	1	9/10	5	9.5	25	1
Success	A	Irr.	3	20	5	-	11	9/22	15	14.1	28	2
Success	A	D.L.	3	15	8	-	8	9/17	33	13.3	27	1
Sugar	C	Irr.	4	18	6	5/27	12	9/20	28	13.0	28	1
Sugar	C	D.L.	5	17	5	-	10	9/16	48	11.4	29	2
Summer Pear	A	Irr.	4	16	8	5/29	12	9/4	36	12.6	27	1
Summer Pear	A	D.L.	2	14	8	5/29	8	9/3	48	11.5	26	-
Superb	A	D.L.	2	17	9	5/26	12	9/25	58	13.7	28	1
Sweet Crab	C	Irr.	4	18	5	5/27	10	8/24	54	12.9	28	5
Sweet Crab	C	D.L.	3	14	7	5/27	5	8/26	11	11.8	25	-
Sweet McIntosh	A	D.L.	1	3	13	-	1	9/30	1	9.4	18	-
Sweet Russet	A	Irr.	3	17	6	5/27	9	9/8	22	12.1	28	1
Sweet Russet	A	D.L.	2	17	7	5/27	9	9/5	30	12.7	26	-
Switzerland	A	D.L.	1	7	17	-	4	9/30	10	11.0	25	2
Tetofsky	A	Irr.	1	1	9	-	-	-	-	-	-	1
Tetofsky	A	D.L.	1	11	8	-	6	8/25	9	11.5	28	4
Tetofsky Cross	C	Irr.	3	16	4	5/27	9	9/6	43	13.8	23	1
Toba	C	Irr.	1	12	4	5/28	7	9/23	15	10.4	20	1
Toba	C	D.L.	1	10	7	-	8	9/18	15	12.4	19	-
Tolman Sweet	A	Irr.	1	1	9	-	-	-	-	-	-	-
Tolmo	A	Irr.	2	9	10	-	4	9/9	13	9.8	22	2
Tolmo	A	D.L.	2	7	9	5/27	4	9/15	11	12.0	23	3
Tony	C	Irr.	1	21	5	5/25	12	9/9	13	12.6	29	4
Trail	C	Irr.	1	9	6	-	3	9/20	15	12.6	22	2
Transcendent	C	Irr.	3	15	6	-	5	9/13	14	15.5	28	5
Transcendent	C	D.L.	2	10	5	-	3	9/5	11	10.5	27	5
Trio Joe	C	Irr.	1	16	3	-	7	9/8	10	9.9	21	--
University	A	Irr.	2	21	6	5/27	14	9/19	106	17.0	29	3
University	A	D.L.	3	17	7	-	12	9/18	78	15.0	27	1
Utter Red	A	Irr.	1	1	14	-	-	-	-	-	-	-
Viking	A	Irr.	1	-	-	-	-	-	-	-	-	-
Viking	A	D.L.	1	1	11	-	-	-	-	-	-	-
Virginia	C	Irr.	2	22	5	5/26	15	9/22	37	17.1	28	4
Virginia	C	D.L.	2	22	4	5/25	12	9/19	56	17.0	26	1

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Volga	C	Irr.	1	16	5	5/27	9	9/25	17	10.3	24	4
Wagner	A	D.L.	2	11	8	-	5	9/29	4	8.5	27	1
Wakaga	C	Irr.	1	14	4	5/27	6	9/29	3	9.6	21	2
Wakpala	A	Irr.	1	16	7	5/29	12	9/26	73	15.6	28	3
Wakpala	A	D.L.	1	2	7	-	-	-	-	10.6	23	-
Wanblee	C	Irr.	1	11	5	-	8	9/26	65	12.6	23	-
Watts	A	Irr.	2	12	7	5/29	6	9/29	13	14.7	23	1
Watts	A	D.L.	2	10	8	5/28	4	9/23	9	12.3	19	-
Waukon	A	Irr.	4	18	6	5/27	14	9/5	38	12.5	28	1
Waukon	A	D.L.	2	18	8	5/29	5	8/28	4	8.7	27	-
Wealthy	A	Irr.	9	12	9	5/28	9	9/22	39	13.1	27	3
Wealthy	A	D.L.	4	14	9	5/29	9	9/17	36	12.0	29	3
Wecota	C	Irr.	3	17	6	5/31	9	10/3	52	12.8	26	2
Wecota	C	D.L.	1	11	8	6/1	7	10/1	81	10.7	20	-
Wedge	A	Irr.	3	13	9	5/30	8	9/17	18	14.1	27	2
Wedge	A	D.L.	2	11	9	-	7	9/15	24	15.6	26	1
Westfield	A	D.L.	2	1	24	-	-	-	-	11.0	26	-
Wetonka	C	Irr.	2	17	6	-	11	9/30	27	12.2	28	1
White Arctic	C	Irr.	1	22	4	5/26	11	8/30	37	13.4	28	2
White Arctic	C	D.L.	3	14	7	-	6	8/27	36	12.4	27	-
White Astrachan	A	D.L.	2	-	-	-	-	-	-	12.2	27	-
White Bellefleur	A	Irr.	1	-	-	-	-	-	-	7.7	21	-
Whitney	C	Irr.	1	20	7	5/28	14	9/14	11	14.2	29	4
Whitney	C	D.L.	3	16	8	5/27	8	9/9	28	12.7	28	2
Willow Twig	A	Irr.	2	11	9	-	4	10/2	3	10.3	28	3
Wilson Red June	A	Irr.	2	16	7	5/29	11	9/19	28	12.5	28	2
Windsor Chief	A	Irr.	1	16	7	-	8	9/26	11	16.7	28	3
Windsor Chief	A	D.L.	1	11	9	-	3	9/25	9	12.2	25	3
Winnifred	A	Irr.	3	13	10	-	8	9/10	26	12.5	29	4
Winter Paradise Sweet	A	D.L.	1	2	24	-	1	9/30	1	12.6	27	-
Winter Queen	A	D.L.	1	3	7	-	1	9/30	2	7.0	25	-
Wolf River	A	Irr.	2	4	20	-	4	9/23	29	16.5	28	3
Wolf River	A	D.L.	1	7	16	-	2	10/7	22	15.0	28	-
Wynema	C	Irr.	2	20	5	6/1	13	10/7	36	12.5	29	2
Wynema	C	D.L.	3	19	6	-	10	10/3	44	10.6	28	2
Wyoming Fremont	A	Irr.	2	8	7	-	5	9/12	12	9.2	26	4
Wyoming A-1	A	Irr.	3	16	6	5/29	11	9/22	51	12.3	26	3
Wyoming A-1	A	D.L.	1	17	6	5/28	9	9/28	111	14.0	25	-
Wyoming A-2	A	Irr.	1	17	6	5/30	12	9/15	55	12.6	26	1
Wyoming A-3	A	Irr.	2	16	6	5/30	12	9/9	54	14.7	26	-
Wyoming 2-3-B	A	Irr.	3	10	11	5/29	4	9/19	5	9.3	25	4
Wyoming 3-1-B	A	Irr.	1	11	7	5/27	2	9/15	1	11.4	23	2

Table 1.--Data for Apple Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			no.	years	years	date	years	date	lbs.	feet	years	no.
Wyoming 3-1-B	A	D.L.	2	15	8	-	8	9/11	16	12.7	25	1
Wyoming 5-1-B	A	Irr.	1	-	-	-	-	-	-	4.9	20	-
Wyoming 5-1-B	A	D.L.	2	3	7	-	1	-	-	11.6	25	-
Wyoming 5-3-B	A	Irr.	2	3	18	-	2	9/15	1	11.1	24	2
Wyoming 5-3-B	A	D.L.	3	7	14	-	3	9/12	63	12.1	25	4
Wyoming 6-2-B	A	D.L.	1	17	6	5/27	9	9/25	60	15.0	24	2
Wyoming 6xxx	A	Irr.	1	13	7	5/29	8	9/13	11	13.0	24	2
Wyoming 7-2-B	A	Irr.	3	12	7	5/29	5	9/15	11	10.2	26	4
Wyoming 7-2-B	A	D.L.	2	5	10	-	2	10/6	11	12.0	25	1
Wyoming 7-3-B (Roberts)	A	Irr.	2	13	7	5/30	10	9/1	75	12.7	26	1
Wyoming 7-3-B (Roberts)	A	D.L.	2	6	12	-	3	8/31	38	11.2	24	-
Wyoming 8-1-B	C	Irr.	3	11	9	5/27	6	9/27	41	15.6	24	4
Wyoming 8-1-B	C	D.L.	2	1	18	-	-	-	-	11.0	25	-
Wyoming 8-2-B	A	Irr.	3	11	9	5/29	6	9/19	10	11.0	24	5
Wyoming 8-2-B	A	D.L.	2	4	9	-	1	9/20	3	11.0	25	-
Wyoming 8-4-B	A	Irr.	4	16	7	5/29	10	9/24	41	12.6	26	4
Wyoming 8-4-B	A	D.L.	2	12	8	5/29	9	9/17	15	12.5	22	1
Wyoming 9-2-B	A	Irr.	1	11	13	5/30	9	9/20	47	12.6	26	1
Wyoming 9-2-B	A	D.L.	1	1	15	-	-	-	-	-	-	-
Wyoming 12-2-B	C	Irr.	3	15	8	5/29	11	9/28	66	16.1	26	1
Wyoming 12-2-B	C	D.L.	2	10	8	5/29	7	9/26	67	17.0	25	-
Wyoming 13-1-B	A	Irr.	1	12	7	5/27	6	9/14	49	14.1	26	4
Wyoming 14-3-B	A	Irr.	1	16	8	5/28	7	9/18	24	12.6	26	2
Wyoming 14-3-B	A	D.L.	2	12	8	5/27	5	9/15	23	12.0	25	1
Yellow Siberian	C	Irr.	3	19	4	5/25	8	9/4	19	15.3	26	5
Yellow Siberian	C	D.L.	2	10	9	-	5	9/11	8	9.7	29	5
Yellow Sweet	A	Irr.	3	14	9	5/28	10	9/4	33	13.6	27	2
Yellow Sweet	A	D.L.	2	15	9	5/29	10	9/3	17	11.3	27	-
Yellow Transparent	A	Irr.	5	12	7	-	9	8/24	10	14.4	27	5
Yellow Transparent	A	D.L.	6	13	8	5/29	9	8/23	15	11.0	27	5
York Imperial	A	D.L.	1	-	-	-	-	-	-	8.0	26	--
Young America	C	Irr.	2	5	18	-	2	9/13	6	14.6	21	2
Young America	C	D.L.	1	16	7	5/28	7	9/14	24	13.0	25	-
Zelma	C	Irr.	1	20	4	5/28	12	9/30	66	14.2	28	3
Zuzoff	A	Irr.	1	12	8	5/27	6	9/29	16	12.2	22	2

[1] Fire blight scale runs from 1 (light infection) through 5 (severe infection), with only the figure for the highest degree of infection on each variety shown.

TABLE 2.— Data for Plum Varieties Surviving

Name	Species or kind[1]	Irrigated or dryland orchard	Number of trees averaged	Average number of years bloomed	Average age at first bloom	Average date of full bloom	Average number of years fruited	Average annual harvest date	Average annual yield	Average height	Average age at measurement
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			no.	years	years	date	years	date	lbs.	feet	years
Agen	P	D.L.	1	17	5	5/23	8	9/27	8	11.3	24
Aitkin	N	Irr.	2	5	10	-	-	-	-	-	-
Aitkin	N	D.L.	1	2	8	-	-	-	-	3.0	11
Aldridge	S	Irr.	2	17	7	5/23	7	9/17	14	8.7	29
Aldridge	S	D.L.	3	21	5	5/21	7	9/14	23	10.8	28
Aljo	-	Irr.	3	11	2	5/21	2	9/8	15	6.0	20
Aljo	-	D.L.	3	11	2	5/18	3	9/4	9	8.0	19
Anita	-	Irr.	3	20	5	5/25	9	9/28	8	9.3	28
Anita	-	D.L.	3	15	6	5/24	5	10/2	9	8.1	26
Anoka	S	Irr.	2	7	10	-	-	-	-	7.1	26
Anoka	S	D.L.	3	17	6	5/24	2	10/4	3	8.4	26
Apricot	A	Irr.	2	3	9	-	-	-	-	-	-
Apricot	A	D.L.	1	4	10	-	-	-	-	-	-
Assiniboine	N	D.L.	3	6	11	-	2	9/9	6	-	-
Beaty	M	Irr.	2	5	9	-	1	9/18	-	-	-
Beaty	M	D.L.	3	7	9	-	-	-	-	-	-
Bender	A	Irr.	1	10	11	-	1	-	-	9.3	23
Black Beauty	D.	Irr.	1	1	9	-	-	-	-	-	-
Black Beauty	D	D.L.	2	1	5	-	-	-	-	-	-
Blue Damson	I	Irr.	1	17	4	5/28	3	10/2	1	10.6	24
Blue Damson	I	D.L.	3	17	3	5/21	9	9/25	26	13.3	23
Brodrick	-	Irr.	1	9	6	-	-	-	-	-	-
Brooks	D	Irr.	1	2	7	-	1	-	-	7.0	13
B-14-Mac[2]	N	Irr.	1	6	9	-	2	9/20	9	-	-
B-14-Mac[2]	N	D.L.	3	8	8	5/19	1	8/18	1	7.9	29
California Blue	P	Irr.	1	1	10	-	-	-	-	1.0	13
California Blue	P	D.L.	1	3	8	-	-	-	-	5.6	12
Champa	B	Irr.	1	9	1	-	3	9/7	5	5.2	27
Cheney	N	Irr.	2	12	9	5/26	2	10/6	11	11.9	29
Cheney	N	D.L.	2	19	7	5/27	4	9/23	3	8.0	27

See footnotes at end of table, p. 32.

Table 2.— Data for Plum Varieties Surviving (continued)

Name	(1)	(2)	(3) no	(4) years	(5) years	(6) date	(7) years	(8) date	(9) lbs.	(10) feet	(11) years
Cheresota	B	Irr.	1	1	10	-	-	-	-	-	-
Cheresota	B	D.L.	4	7	5	-	2	9/10	5	-	-
Cheyenne #20	A	Irr.	1	8	2	-	2	9/5	10	7.7	12
Cheyenne #23	A	Irr.	2	7	3	-	2	10/8	5	8.1	12
Cheyenne #26	A	Irr.	1	6	2	-	1	9/20	1	9.5	12
Cheyenne #28	A	Irr.	1	8	2	-	3	9/10	13	9.6	12
Cheyenne #29	A	Irr.	1	8	2	-	1	9/20	1	8.6	12
Cheyenne #30	A	Irr.	2	7	2	-	4	10/8	7	9.3	12
Cheyenne #31	A	Irr.	3	6	3	-	3	9/28	9	8.1	12
Cheyenne #33	A	Irr.	2	6	4	-	3	9/28	9	8.3	12
Cheyenne #34	A	Irr.	4	8	2	-	3	9/13	9	8.1	12
Cheyenne #35	A	Irr.	6	7	2	-	2	9/20	6	8.6	12
Cheyenne #36	A	Irr.	3	7	2	-	3	9/29	5	8.3	12
Cheyenne #37	A	Irr.	3	8	2	-	3	10/2	8	7.8	12
Cheyenne #38	A	Irr.	3	6	3	-	2	10/1	3	8.0	12
Cheyenne #39	A	Irr.	4	7	2	-	2	10/7	5	8.3	12
Cheyenne #40	A	Irr.	2	8	2	-	3	9/10	3	7.2	12
Clyman	P	D.L.	1	16	4	5/22	7	8/22	4	11.0	24
Compass	B	Irr.	2	6	10	-	2	9/6	7	-	-
Compass	B	D.L.	3	10	5	-	4	9/13	21	-	-
Convoy	B	Irr.	2	5	4	-	-	-	-	4.1	13
Cooper	C x E	Irr.	2	17	3	5/28	6	9/19	7	9.1	23
Cree	N	Irr.	3	22	4	5/23	8	9/6	9	8.9	29
Cree	N	D.L.	3	16	6	5/21	7	9/7	5	7.6	28
Dandy	N	Irr.	1	19	7	5/20	11	9/16	10	8.1	28
Dandy	N	D.L.	2	10	4	-	1	9/2	3	8.1	19
Degolier	P	D.L.	1	15	6	5/21	8	9/18	10	11.0	25
De Soto	A	Irr.	3	11	5	5/27	4	9/23	12	11.6	29
De Soto	A	D.L.	2	14	6	-	6	9/23	12	7.6	29
Dropmore	-	Irr.	1	16	4	-	4	9/9	3	7.0	23
Dropmore	-	D.L.	4	4	7	-	-	-	-	8.2	12
Dura	B	Irr.	1	1	7	-	-	-	-	-	-
Dura	B	D.L.	1	8	1	-	3	9/6	3	2.6	12
Elliott	S	Irr.	3	11	6	-	5	9/23	17	10.3	21
Elliott	S	D.L.	3	8	5	-	2	9/23	8	5.5	19
Ember	S	D.L.	3	5	4	-	1	9/28	3	5.1	18
Emerald	S	Irr.	6	16	5	5/26	8	10/2	16	9.7	28
Emerald	S	D.L.	4	14	5	5/21	5	9/23	25	8.6	24
Ezaptan	B	D.L.	1	16	3	5/25	8	9/9	5	6.6	21
Fiebing	S	Irr.	1	22	4	5/20	10	9/10	6	8.3	29
Fiebing	S	D.L.	3	20	5	5/19	8	9/9	14	10.4	28
Forest Garden	C	D.L.	4	9	5	-	2	9/19	37	-	-

Table 2.– Data for Plum Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			no.	years	years	date	years	date	lbs.	feet	years
German Prune	P	D.L.	1	7	12	-	2	9/30	1	-	-
Golden Anniversary	B	Irr.	3	7	9	-	1	-	-	-	-
Golden Anniversary	B	D.L.	3	3	10	-	1	9/7	10	-	-
Goldenrod	S	D.L.	3	1	9	-	-	-	-	7.0	12
Golden West	-	Irr.	1	22	3	5/23	13	9/27	19	10.1	28
Golden West	-	D.L.	2	7	4	-	2	9/17	12	8.5	12
Grand Duke	P	Irr.	1	5	4	-	2	10/1	3	8.2	12
Green Gage	P	Irr.	1	1	9	-	-	-	-	8.4	12
Green Gage	P	D.L.	1	4	4	-	1	9/25	2	9.0	11
Grenville	S	Irr.	2	3	7	-	1	-	-	4.4	13
Grenville	S	D.L.	2	4	5	-	-	-	-	6.2	12
Gueii	P	D.L.	1	13	8	-	7	9/18	15	11.0	24
Hall	P	D.L.	2	5	5	-	3	10/2	11	11.7	11
Hammer	C x A	D.L.	3	9	8	5/26	2	10/5	5	11.5	29
Hanska	H	Irr.	3	14	6	5/22	5	9/22	8	7.1	29
Hanska	H	D.L.	3	17	4	5/19	6	9/17	8	7.9	27
Haralson # 4	S	Irr.	1	17	4	5/21	7	9/11	6	9.0	24
Haralson # 4	S	D.L.	2	11	5	5/19	4	9/9	18	11.5	23
Hawkeye	A	Irr.	1	6	10	-	1	-	-	-	-
Hawkeye	A	D.L.	3	15	5	5/24	4	10/1	21	11.9	27
Hennepin	S	D.L.	4	2	5	-	1	8/26	6	-	-
Hollywood	-	Irr.	2	1	10	-	-	-	-	6.5	12
Hudson Bay	B	Irr.	3	2	10	-	-	-	-	-	-
Imperial Gage	P	Irr.	2	2	10	-	1	9/18	2	-	-
Imperial Gage	P	D.L.	2	12	6	5/22	4	9/14	14	12.0	27
Italian Prune	P	D.L.	1	13	7	-	3	9/22	7	7.5	27
Ivanovka	S	Irr.	1	1	7	-	-	-	-	-	-
Jewell	E	D.L.	3	11	9	5/26	2	9/27	21	10.5	27
Kaga	H	Irr.	3	12	7	5/20	4	10/1	16	8.9	29
Kaga	H	D.L.	2	18	6	5/19	7	9/23	13	7.0	29
Kahinta	S	Irr.	3	8	9	5/24	3	9/23	19	11.9	29
Kahinta	S	D.L.	4	11	7	5/21	5	9/18	12	10.5	23
Kota	H	Irr.	1	7	4	-	3	9/19	11	11.1	20
La Crescent	S	Irr.	2	12	7	5/22	5	9/5	10	11.2	27
La Crescent	S	D.L.	7	17	5	5/20	8	9/1	20	11.2	27
Lombard	P	D.L.	3	11	9	5/23	4	9/20	10	11.0	27
Loring Prize	S	Irr.	2	16	4	-	4	9/21	1	10.5	28
Loring Prize	S	D.L.	2	16	6	5/17	3	9/9	3	7.0	29
Mammoth	N	Irr.	2	22	5	5/21	10	9/7	24	9.7	29
Mammoth	N	D.L.	2	16	7	5/21	7	9/3	15	8.0	28
Mana Hybrid	B	Irr.	2	4	9	-	1	9/18	2	-	-
Manchurian Green Gage	-	Irr.	2	1	9	-	-	-	-	5.1	12

Table 2.— Data for Plum Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			no.	years	years	date	years	date	lbs.	feet	years
Manchurian Green Gage	-	D.L.	1	2	6	-	-	-	-	-	-
Mandan Golden	B	Irr.	1	6	1	-	-	-	-	4.0	13
Mandan #69	A	D.L.	3	4	6	-	1	9/1	2	-	-
Mandan #75	A	Irr.	1	15	3	-	5	9/14	19	6.6	22
Mandan 26-4	B	Irr.	1	-	-	-	-	-	-	3.0	14
Mandan 26-4	B	D.L.	1	6	1	-	-	-	-	7.0	12
Mandarin	S	Irr.	1	4	3	-	1	-	-	9.5	12
Mandarin	S	D.L.	1	-	-	-	-	-	-	1.9	11
Manor	B	Irr.	2	6	2	-	2	8/22	2	7.7	12
Manor	B	D.L.	1	4	2	-	-	-	-	7.4	11
Maynard	-	Irr.	1	-	-	-	-	-	-	-	-
McRobert	N	Irr.	4	4	5	-	1	9/15	2	7.9	12
Mendota	S	Irr.	3	10	8	-	3	9/30	16	6.7	26
Mendota	S	D.L.	1	14	5	-	1	9/30	40	-	-
Mina	S	Irr.	3	5	5	-	2	8/15	3	8.6	12
Mina	S	D.L.	2	11	4	-	2	8/27	3	7.0	19
Miner	C	Irr.	3	12	6	-	4	9/21	2	9.1	29
Miner	C	D.L.	2	3	8	-	-	-	-	-	-
Minn. 25	-	Irr.	1	14	2	-	4	10/1	15	10.2	22
Minn. 63	-	Irr.	1	15	5	-	4	9/11	3	9.6	26
Minn. 83	-	D.L.	2	2	5	-	-	-	-	-	-
Minn. 89	-	Irr.	1	13	3	-	-	-	-	7.0	21
Minn. 189	-	D.L.	1	13	6	-	-	-	-	-	-
Minn. 194	-	D.L.	1	3	4	-	-	-	-	-	-
Minn. 201	-	Irr.	1	19	6	5/22	11	9/14	17	9.7	27
Minn. 209	-	Irr.	1	2	8	-	-	-	-	-	-
Minn. 225	-	Irr.	1	19	3	5/21	9	9/8	15	10.5	24
Minn. 225	-	D.L.	2	19	3	5/19	7	9/7	13	10.4	23
Minn. 230	-	D.L.	2	7	7	-	2	9/17	7	-	-
Minn. 263	-	Irr.	1	4	7	-	1	-	-	-	-
Minn. 267	-	Irr.	2	17	3	5/21	5	9/13	10	6.7	22
Minn. 276	-	Irr.	1	17	3	5/21	8	9/11	6	10.4	23
Minn. 285	-	Irr.	2	15	5	-	6	9/11	15	8.7	25
Minn. 290	-	Irr.	1	15	6	-	4	9/11	19	8.9	26
Minn. 297	-	Irr.	1	19	5	5/25	8	9/25	9	10.1	26
Minn. 317	-	D.L.	1	10	3	-	4	9/17	4	7.4	14
Minn. 328	-	Irr.	1	19	5	5/23	8	9/12	44	8.2	26
Minn. 334	-	Irr.	1	4	7	-	-	-	-	-	-
Monitor	S	Irr.	1	-	-	-	-	-	-	4.6	12
Monitor	S	D.L.	2	20	6	5/21	5	9/17	4	9.7	28
Mordel	N	D.L.	1	9	2	-	1	9/10	2	-	-
Morden	B	Irr.	1	6	4	-	-	-	-	-	-

Table 2.- Data for Plum Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			no.	years	years	date	years	date	lbs.	feet	years
Morden M-109	-	Irr.	1	15	5	-	7	9/7	13	8.2	24
Mordena	B	D.L.	3	18	3	5/26	4	9/10	7	7.2	23
Mound	S	D.L.	2	12	6	5/21	6	9/28	7	7.5	29
Mt. Royal	P	Irr.	3	16	7	5/23	9	9/21	14	10.3	29
Mt. Royal	P	D.L.	2	5	5	-	3	10/1	4	8.0	12
New Compass	B	Irr.	3	22	4	5/27	11	9/5	6	9.0	28
New Compass	B	D.L.	3	16	3	5/24	7	8/30	8	8.4	26
Newman	E	Irr.	1	16	5	-	1	10/1	1	8.4	26
Newman	E	D.L.	1	18	5	5/24	3	10/3	21	9.0	20
Nicollet	B	Irr.	2	1	10	-	-	-	-	-	-
Nicollet	B	D.L.	1	4	6	-	2	8/13	12	-	-
N.P. #8	A	Irr.	2	3	9	-	1	9/26	2	6.3	14
N.P. #9	A	Irr.	1	5	7	-	1	9/30	5	7.2	14
N.P. #10	A	Irr.	2	7	3	-	2	10/1	3	7.6	14
N.P. #11	A	Irr.	1	5	6	-	-	-	-	-	-
N.P. #13	A	Irr.	1	-	-	-	--	-	-	6.7	14
N.P. #14	A	Irr.	2	8	1	-	3	10/1	7	6.3	14
N.P. #17	A	Irr.	1	7	1	-	-	-	-	5.1	14
N.P. #24	A	Irr.	1	7	3	-	2	10/1	3	8.4	14
N-57	B	Irr.	1	7	7	-	-	-	-	3.9	24
Oacoma	A	Irr.	1	10	4	-	3	10/2	1	10.1	20
Ojibwa	S	D.L.	3	15	6	-	5	9/10	10	-	-
Oka	B	Irr.	2	4	8	-	1	9/4	4	2.9	21
Oka	B	D.L.	4	3	10	-	1	9/7	32	-	-
Olson	-	Irr.	3	13	3	5/20	5	9/11	11	9.3	23
Olson	-	D.L.	2	9	4	-	2	9/5	3	-	-
Omaha	S	Irr.	2	15	7	-	8	9/29	15	9.9	27
Omaha	S	D.L.	3	14	5	5/20	5	9/27	29	9.0	28
Opata	B	Irr.	3	12	8	5/25	6	9/2	8	5.3	29
Opata	B	D.L.	3	6	6	-	2	9/5	11	-	-
Orchard #1	N	Irr.	1	13	2	5/23	2	9/6	3	8.9	20
Orchard #1	N	D.L.	2	13	3	5/20	4	9/2	17	7.8	19
Orchard #3	N	Irr.	3	15	1	-	3	8/30	3	6.4	20
Orchard #3	N	D.L.	3	10	4	-	1	9/8	4	-	-
Orchard #4	N	D.L.	1	13	4	-	5	9/4	8	12.0	19
Oziya	S	Irr.	1	10	4	-	3	8/25	7	7.4	20
Pacific	P	Irr.	1	-	-	-	-	-	-	2.0	13
Pacific	P	D.L.	3	2	8	-	-	-	-	6.5	12
Parson Sweet	P	Irr.	1	-	-	-	-	-	-	4.7	12
Parson Sweet	P	D.L.	2	3	7	-	-	-	-	11.0	11
Patten	A	D.L.	2	20	6	5/29	7	9/30	4	9.5	28
Patten XX	E	D.L.	3	1	11	-	-	-	-	-	-

Table 2.— Data for Plum Varieties Surviving (continued)

Name	(1)	(2)	(3) no.	(4) years	(5) years	(6) date	(7) years	(8) date	(9) lbs.	(10) feet	(11) years
Peach	P	D.L.	1	13	8	5/20	4	8/23	12	11.0	25
Pembina	S	Irr.	3	19	5	5/21	9	9/8	23	10.2	29
Pembina	S	D.L.	3	15	8	5/19	5	8/27	15	8.8	28
Pipestone	S	Irr.	1	5	8	-	-	-	-	-	-
Pipestone	S	D.L.	1	4	6	-	1	9/18	2	9.4	11
Plum #217	-	Irr.	1	-	-	-	-	-	-	9.3	12
Pottawattomie	E	D.L.	3	8	5	-	4	9/26	1	8.8	27
Pride of Oregon	-	Irr.	1	1	9	-	-	-	-	2.0	12
Prinlew	P	D.L.	2	11	4	5/23	3	9/12	9	11.8	22
Producer	A	Irr.	3	4	4	-	1	9/25	3	9.5	12
Producer	A	D.L.	3	5	5	-	1	-	-	8.5	11
Quaker	A	Irr.	2	11	8	5/25	6	9/27	10	14.4	28
Radisson	S	Irr.	3	16	6	5/20	4	8/29	1	10.3	29
Radisson	S	D.L.	3	13	6	5/18	2	8/21	1	10.2	29
Red Coat	S	Irr.	1	7	7	-	1	9/9	21	5.3	12
Red Coat	S	D.L.	1	1	9	-	-	-	-	-	-
Red Glow	S	Irr.	2	4	4	-	3	8/29	7	8.1	13
Red Glow	S	D.L.	3	3	7	-	1	9/20	10	8.6	12
Red Wing	S	Irr.	2	11	7	-	6	9/14	8	5.9	28
Red Wing	S	D.L.	3	12	7	5/23	4	9/15	7	8.0	29
Richland	P	D.L.	3	15	5	5/21	10	9/14	29	11.8	25
Rolling Stone	A	Irr.	2	14	4	5/23	3	9/6	8	10.3	23
Ruby	B	Irr.	1	7	2	-	-	-	-	2.3	13
Ruby	B	D.L.	3	7	2	-	1	9/5	6	6.8	12
Russian[2]	N	Irr.	2	4	6	-	1	8/21	5	8.2	13
Russian[2]	N	D.L.	3	2	8	-	-	-	-	6.1	12
Russian Green Gage	P	Irr.	2	7	6	-	2	9/17	20	8.1	13
Russian Green Gage	P	D.L.	2	1	9	-	-	-	-	7.6	12
Russian #6[2]	N	Irr.	1	16	4	5/26	-	-	-	5.2	23
Russian #8[2]	N	Irr.	1	15	4	5/25	5	9/14	5	12.5	23
Russian #9[2]	N	Irr.	1	15	4	-	2	9/5	1	9.8	23
Sannois	P	Irr.	3	-	-	-	-	-	-	6.2	13
Sannois	P	D.L.	1	3	8	-	3	9/20	2	12.6	12
Sansota	B	Irr.	3	8	9	-	2	9/13	6	-	-
Sansota	B	D.L.	2	4	6	-	1	9/14	11	-	-
Sapa	B	Irr.	2	7	5	-	3	9/9	3	2.0	17
Sapa	B	D.L.	1	20	6	5/26	11	9/5	6	-	-
Sapalta	B	Irr.	2	2	8	-	1	9/5	2	2.0	13
Sapalta	B	D.L.	3	5	5	-	1	9/5	10	9.9	12
Sergeant	P	Irr.	3	2	8	-	1	9/21	10	6.4	12

See footnote at end of table, p. 32.

Table 2.— Data for Plum Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			no.	years	years	date	years	date	lbs.	feet	years
Sergeant	P	D.L.	1	-	-	-	-	-	-	4.0	11
Shropshire	I	Irr.	2	8	8	-	6	9/25	9	13.2	28
Shropshire	I	D.L.	3	7	9	5/26	2	9/28	2	10.6	27
Silver Prune	P	D.L.	2	10	10	5/21	4	10/1	4	13.0	27
Skuya	B	D.L.	3	8	5	-	2	9/22	24	6.1	28
Sondreggers Sweet	S	Irr.	2	4	6	-	-	-	-	9.2	13
Sondreggers Sweet	S	D.L.	1	3	4	-	1	9/15	5	4.7	12
South Dakota	A	Irr.	2	9	7	5/24	4	9/24	10	7.7	17
South Dakota	A	D.L.	3	4	4	-	-	-	-	6.7	12
Splendid	H	Irr.	2	3	9	-	1	-	-	-	-
Splendid	H	D.L.	2	9	4	-	3	9/13	16	-	-
Stanley	P	D.L.	2	5	4	-	4	9/28	4	9.5	11
St. Anne	P	Irr.	1	-	-	-	-	-	-	-	-
St. Anne	P	D.L.	1	14	5	5/21	6	9/7	19	10.0	23
St. Anthony	B	D.L.	3	7	8	-	2	8/28	12	-	-
Stella	A	Irr.	1	4	10	-	-	-	-	-	-
Stella	A	D.L.	3	15	7	5/21	5	9/18	6	7.0	29
Sunset	A	Irr.	2	2	8	-	1	9/15	20	4.7	13
Sunset	A	D.L.	3	6	4	-	2	9/15	21	9.8	12
Surprise	C	Irr.	1	18	6	-	4	9/20	1	10.4	28
Surprise	C	D.L.	3	10	4	5/25	2	9/22	4	10.0	27
Swedish	P	D.L.	3	16	5	5/22	6	9/28	11	8.8	26
Sweet July	P	Irr.	1	5	4	-	3	9/18	7	7.2	12
Sweet July	P	D.L.	1	2	7	-	-	-	-	6.0	11
Swensons Prune	I	Irr.	1	14	4	-	8	9/23	5	13.0	25
Swensons Prune	I	D.L.	3	15	4	5/21	7	9/19	20	11.1	24
Tecumseh	S	Irr.	3	18	6	5/21	11	9/4	17	10.2	28
Tecumseh	S	D.L.	3	19	5	5/21	10	8/22	13	8.9	28
Terry	A	Irr.	2	20	6	5/26	7	9/18	4	9.5	29
Terry	A	D.L.	3	14	7	5/25	4	9/20	12	9.1	29
Toka	H	Irr.	3	3	9	-	-	-	-	-	-
Toka	H	D.L.	2	13	5	5/20	3	9/24	9	13.0	28
Tokata	H	Irr.	1	22	4	5/21	12	9/4	5	8.1	29
Tokata	H	D.L.	2	12	6	-	4	9/7	4	-	-
Tom Thumb	B	Irr.	2	1	9	-	-	-	--	-	-
Tonka	S	Irr.	1	23	2	5/26	4	10/5	3	9.3	27
Tonka	S	D.L.	3	3	4	-	2	9/19	4	9.0	11
Twilite #97	-	Irr.	1	4	6	-	-	-	-	9.2	12
Underwood	S	Irr.	3	14	6	-	3	9/4	6	8.0	29
Underwood	S	D.L.	4	11	6	5/21	3	9/15	4	10.7	28
U-10-10	B	Irr.	1	2	3	-	-	-	-	5.7	13
U-14-100	B	Irr.	1	3	8	-	1	9/10	2	6.1	13

Table 2.— Data for Plum Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			no.	years	years	date	years	date	lbs.	feet	years
Valley City	B	D.L.	2	8	2	-	-	-	-	7.0	12
Valley River	N	Irr.	2	15	7	-	1	8/30	11	9.7	28
Valley River	N	D.L.	3	6	3	-	1	8/22	5	-	-
Wachampa	B	Irr.	2	20	6	-	10	9/11	3	6.1	28
Wachampa	B	D.L.	3	5	4	5/27	3	9/13	11	8.0	14
Wallace	N	Irr.	3	4	5	-	1	8/26	5	-	-
Wallace	N	D.L.	2	3	5	-	1	8/22	2	5.0	12
Waneta	S	Irr.	3	6	9	-	1	9/19	16	6.7	12
Waneta	S	D.L.	3	20	5	5/21	8	9/12	18	6.3	28
Wastesa	A	Irr.	3	5	9	-	1	9/30	18	-	-
Wastesa	A	D.L.	4	17	6	5/24	6	9/23	18	9.0	29
Weaver	A	Irr.	3	16	4	5/24	6	9/22	11	7.3	22
Weaver	A	D.L.	3	16	7	5/24	4	9/28	8	7.7	27
Wild Goose	E	D.L.	2	3	13	-	1	9/20	8	-	-
Wild Plum #1	-	Irr.	1	1	8	-	-	-	-	9.4	12
Wild Plum #3	-	Irr.	1	-	-	-	-	-	-	7.3	12
Wilson River	N	Irr.	1	3	10	-	-	-	-	-	-
Wilson River	N	D.L.	3	6	7	-	-	-	-	-	-
Winnipeg	N	Irr.	1	6	10	-	1	9/15	23	-	-
Winona	S	D.L.	3	12	5	5/18	4	9/30	15	8.0	29
Wisconsin	P	Irr.	1	2	8	-	-	-	-	8.7	13
Wisconsin	P	D.L.	1	-	-	-	-	-	-	4.1	12
Wohanka	B	Irr.	1	8	4	-	2	9/9	3	-	-
Wolf	A	Irr.	2	16	6	5/27	7	9/29	10	7.2	28
Wolf	A	D.L.	2	8	8	-	1	9/20	2	-	-
W.S.D. #2	A	Irr.	1	18	3	5/24	6	9/26	11	9.4	24
W.S.D. #5	A	Irr.	2	19	3	5/25	5	9/18	7	8.9	24
W.S.D. #6	A	Irr.	1	6	5	-	-	-	-	-	-
W.S.D. #10	A	Irr.	2	19	2	5/22	8	10/1	9	11.0	24
W.S.D. #11	A	D.L.	1	17	3	-	3	10/6	3	10.0	23
W.S.D. #12	A	D.L.	2	19	2	5/21	5	9/29	11	8.8	23
W.S.D. #13	A	D.L.	1	20	2	5/21	4	10/1	4	9.0	23
W.S.D. #14	A	D.L.	2	12	7	-	1	10/1	2	3.0	23
W.S.D. #15	A	D.L.	1	7	6	-	-	-	-	-	-
W.S.D. #17	A	D.L.	1	7	6	-	-	-	-	-	-
Wyant	A	Irr.	2	21	5	5/24	10	10/1	10	9.1	28
Wyant	A	D.L.	3	15	5	-	5	9/23	14	9.0	27
Yakima	P	D.L.	1	9	7	-	4	9/11	18	-	-
Yellow Egg	P	D.L.	2	2	11	-	-	-	-	-	-
Yuteca	A	D.L.	4	3	7	-	1	9/26	41	-	-
Zekanta	A	Irr.	1	18	4	5/27	1	10/6	22	9.7	20

Table 2.— Data for Plum Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			no.	years	years	date	years	date	lbs.	feet	years
Zumbra	B	Irr.	2	2	10	-	1	-	-	-	-
Zumbra	B	D.L.	3	4	6	-	2	9/5	10	-	-

[1] A-Prunus americana, B-P. besseyi hybrid, C-P. hortulana, D-P. besseyi, E-P. munsoniana, H-P. simoni hybrid, I-P. insititia, M-P. angustifolia, N-P. nigra, P-P. domestica, S-P. salicina hybrid.

[2] Originated in Manitoba, Canada; presumed to be P. nigra.

TABLE 3.— Data for Cherry Varieties Surviving

Name	Species or kind[1]	Irrigated or dryland orchard	Number of trees averaged	Average number of years bloomed	Average age at first bloom	Average date to full bloom	Average number of years fruited	Average annual harvest date	Average annual yield	Average height	Average age at measurement
			no.	years	years	date	years	date	lbs.	feet	years
ACH #24	C	Irr.	1	6	2	-	-	-	-	11.9	18
ACH #24	C	D.L.	1	-	-	-	-	-	-	-	-
Bessarabian	C	Irr.	1	1	10	-	-	-	-	-	-
Brassington	E	D.L.	2	13	6	-	6	8/18	18	11.9	24
Dyehouse	C	D.L.	3	20	6	5/26	13	7/14	16	11.3	28
Early Richmond	C	Irr.	2	13	5	5/28	6	7/23	16	9.3	20
Early Richmond	C	D.L.	6	17	4	5/26	10	7/16	21	10.1	23
English Morello	C	D.L.	3	18	6	-	11	8/7	21	8.8	28
Giant	A	Irr.	1	-	-	-	-	-	-	-	-
Homer	C	D.L.	3	18	7	5/29	9	7/27	7	8.6	28
Late Duke	E	D.L.	1	11	6	-	5	7/22	5	11.7	25
Mahaleb	M	Irr.	5	1	10	-	-	-	-	5.8	13
Mahaleb	M	D.L.	6	1	11	-	-	-	-	4.2	12
McClain	C	Irr.	3	3	7	-	1	8/3	1	7.2	13
McClain	C	D.L.	3	6	5	-	3	7/24	16	8.5	12
Montearly	C	D.L.	3	18	5	5/26	10	7/19	26	11.9	25
Montmammoth	C	Irr.	1	2	8	-	-	-	-	7.4	13
Montmammoth	C	D.L.	1	6	5	-	1	8/1	1	-	-
Montmore	C	D.L.	3	5	4	-	3	7/26	11	9.2	12
Montmorency	C	Irr.	5	16	5	5/29	10	8/4	17	10.1	25
Montmorency	C	D.L.	7	19	4	5/28	13	7/28	19	10.1	26
Ostheim	C	Irr.	3	18	4	5/26	9	7/29	6	7.4	24
Ostheim	C	D.L.	3	21	4	5/25	11	7/28	11	9.2	26
Pincherry	P	Irr.	6	13	6	5/19	2	7/27	2	11.0	24
Richmorency	C	Irr.	1	18	4	5/29	12	7/27	25	11.3	25
Sondregger's Sweet	E	D.L.	2	9	6	-	3	7/11	3	9.0	26
Ural Mountain	F	D.L.	1	12	6	-	3	7/18	8	7.6	19
Vladimir	F	Irr.	1	14	10	-	3	8/3	1	7.3	29
Yellow Glass	A	Irr.	1	-	-	-	-	-	-	4.2	13
Yellow Glass	A	D.L.	1	13	5	-	6	7/18	12	14.3	23

[1] A-Prunus avium, C-P. cerasus, E-P. effusa, F-P. fruticosa, M-P. mahaleb, P-P. pensylvanica.

TABLE 4.— Data for Pear Varieties Surviving

Name	Irrigated or dryland orchard (1)	Number of trees averaged (2)	Average number of years blocmed (3)	Average age at first bloom (4)	Average date to full bloom (5)	Average number of years fruited (6)	Average annual harvest date (7)	Average annual yield (8)	Average height (9)	Average age at measurement (10)	[1]Fireblight susceptibility index (11)
		no.	years	years	date	years	date	lbs.	feet	years	no.
ACH #28	D.L.	1	3	10	-	2	10/10	2	8.0	17	-
Bantam	Irr.	1	-	-	-	-	-	-	-	-	1
Bantam	D.L.	2	13	10	5/22	6	9/15	18	13.5	27	1
Bierschmidt	D.L.	1	16	4	-	6	9/23	12	9.0	24	2
Bock	D.L.	1	14	7	-	8	10/1	16	12.0	29	1
Flemish Beauty	Irr.	1	3	10	-	1	-	1	-	-	-
Garber	D.L.	2	2	20	-	2	-	1	13.0	26	2
Kieffer	D.L.	1	8	1	-	2	10/1	1	9.5	20	-
Koonce	Irr.	2	3	19	-	-	-	-	10.8	25	3
Koonce	D.L.	2	3	15	-	1	-	-	12.0	27	-
Lincoln	D.L.	1	4	12	-	-	-	-	-	-	-
Longworth	Irr.	1	9	13	-	3	9/21	10	13.0	28	4
Longworth	D.L.	1	11	11	-	7	9/14	28	15.0	27	2
Mendel	D.L.	1	13	10	-	3	9/30	2	13.0	27	-
Ming	D.L.	1	7	14	-	1	-	-	8.0	25	1
Minie	Irr.	2	2	12	-	-	-	-	-	-	-
Moe	Irr.	2	7	7	-	1	-	-	11.0	20	5
Orel #15	D.L.	1	13	12	5/23	7	9/3	32	16.2	29	-
Parish Favorite	D.L.	1	8	14	-	3	10/1	8	10.0	24	4
Parker	Irr.	2	4	11	-	1	9/8	1	-	-	-
Patten	D.L.	1	9	7	-	3	9/25	28	14.0	27	-
Patten #5	Irr.	1	8	6	-	2	-	2	-	-	4
Patten 1200	D.L.	1	15	13	5/23	10	9/21	34	17.0	29	1
Philison	Irr.	1	-	-	-	-	-	-	-	-	-
Pyrus ovoides	Irr.	1	-	-	-	-	-	-	12.9	23	-
Russian Sand Pear	Irr.	1	4	14	-	1	-	-	14.0	23	-
Sudduth	D.L.	2	10	17	-	7	10/1	38	15.6	29	2
Tait Dropmore	Irr.	1	5	8	-	-	-	-	-	-	-
Tait #1	Irr.	1	14	9	5/25	4	9/21	6	11.0	27	4
Tait #1	D.L.	3	14	9	5/24	6	9/24	20	13.3	26	2

Table 4.— Data for Pear Varieties Surviving (continued)

Name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		no.	years	years	date	years	date	lbs.	feet	years	no.
Tait #2	Irr.	2	9	9	-	-	-	-	10.9	29	4
Tyson	Irr.	1	1	6	-	-	-	-	8.9	18	-
Tyson	D.L.	1	6	10	-	2	9/10	5	15.6	17	2

[1] Fireblight scale runs from 1 (light infection) through 5 (severe infection), with only the figure for the highest degree of infection on each variety shown.

Table 5.—Apple Varieties that Failed to Survive

Name	Number Planted	Name	Number Planted
ACH #34	6	Grimes Golden	19
ACH #35	6	Gurney Seedless	15
Afton	17	Hackworth	5
Alaska	6	Hamilton	6
Altha	5	Heyer #2	10
Arkansas Black	30	Heyer #12	1
Baldwin	17	Heyer #20	7
Banana	18	Horse	6
Belfler Kitaika PI 107200	2	Hubbardson Nonesuch	21
Bellefleur	1	Hudson's Golden Gem-	13
Bellefleur Phoenix PI 107201	1	Huntsman	21
Bison, S.D.	4	Iamnoie PI 107213	2
Bledsoe	19	Ingram	11
Boiken	11	Jonathan	26
Breaky	9	Jongrimes	1
Brett	8	Jonwin	6
Caputa	2	Joy Crab	4
Carlton	22	Judson	18
Champion	19	Jumbo	7
Charles	13	J.V. Kelly	1
Chenango	10	K-12	5
Chenango Strawberry	19	K-18	4
Chinook	34	K-29	4
Close	3	K-51	4
Coffman	18	K-60	5
Coopers Early	16	Kalvil Record PI 107216	2
Delawine	6	Kazan	2
Delcon	6	Kendall	16
Dominee	13	King	14
Dr. Mathews	12	Kinnards Choice	11
Dutch Mignonne	12	Lady	26
Early Goodwin	6	Lawfame	8
Eda S.D.	3	Lusovka	13
E.G. Russett	6	Maga	5
Elkhorn	4	Magnum Bonum	13
Ensee	16	Maiden Blush	23
Fall Cheese	9	Metzger	6
Fall Pippin	12	Miami	6
Gideon	11	Minkler	15
Gilbert	6	Missouri Pippin	17
Gloria Mundi	14	Monitor	1
Golden Delicious	16	Monocacy	10
Gravenstein	31	Monroe	3

Table 5.—Apple Varieties that Failed to Survive (continued)

name	number planted	name	number planted
Morden 313	3	Silver Crab	6
Morden 314	5	Skinners Seedling	16
Morden 315	2	Smokehouse	12
Morden 352	2	Sparton	3
Morden 5030-I-141	3	Spitzenberg	13
Morden 5034-C-15	2	Spokane Beauty	12
Morden 5034-E-346	2	Starr	14
Mother	6	Stayman Winesap	17
Myron Sachanny PI 154164	1	Summer Champion	6
Nebo	2	Summer Rambo	5
Newman	2	Sweet Bough	18
Nocalyx	9	Sweet Delicious	20
Northern Spy	19	Sweet June	22
Oliver	7	Tama	1
Opalescent	25	Terry	11
Orenco	12	Texola	6
Orleans	26	Tolman	33
Ortley	12	Turley	26
Oxbo	2	Twenty Ounce	12
Paragon	13	M.B. Twigg	9
Phoenix	11	Utter Green	3
Polly Eades	12	Wakonda	1
Porter	15	Wallace	3
Pound Sweet	19	Wallace Hybrid	4
Pumpkin Sweet	12	Waxen	13
Rambo	6	Waziza	1
Red Gravenstein	2	White Winter Permain	17
Red Hackworth	12	Winter Horse	12
Red Hook	6	Yates	18
Red Northern Spy	13	Yellow Belle	12
Red Reese	5	Yellow Belleflower	12
Red Rome Beauty	20	Yellow Delicious	2
Red Silver Crab	4	Yellow Newton Pippin	12
Red Warrior	15	Yorkared	3
Red Wine	7	Żaza	1
Rhode Island Greening	15		
Ringstad PI 102146	2		
Roman Stem	14		
Roxbury Russett	23		
San Jacinta	1		
Sargent	7		
Schoner aus Nordhausen PI 125169	6		

Table 6.—Plum Varieties that Failed to Survive

Name	Number Planted	Name	Number Planted
Abundance	19	McCarthy	3
Ace	6	Methley	12
Advance	1	Milton	6
Albion	10	Monarch	1
Alpha	6	New Standard Prune	14
America	12	Oake	1
America Mirabelle	2	Pearl	3
Apex Plumcot	12	Premier Mt. Grove	1
Austrian Prune	16	Prunus sp. "Damascus Escape"	3
Bartlett	10	Pugh	3
Bavay Green Gage	6	Red Ace	3
Big Mackay	6	Sanoba	12
Blue Eagle	4	Shipper's Pride	18
Bluefree #228	1	Six Weeks	18
Brender	3	Snider	2
Bruce	18	Stanopa	2
Burbank	20	Stockton	3
Capt. Gardner	4	Tragedy	14
Champa I-35	1	Vacaville	3
Champa C-34	1	Wampum	1
Cikana	1	Wasta	1
Coe Golden Drop	14	Watauga	1
Demontfort	2	Weatherspoon Prune	12
El Dorado	6	Wenela	1
		Weta	1
Enopa	4	York State Prune	6
Etopa	4		
Euteka	2		
Finch's Ruby Red #77	1		
Formosa	17		
Gold	15		
Gonzales	12		
Hungarian Prune	18		
Huya	2		
Imperial Epineuse	2		
Imperial Japanese	6		
Indian Blood	13		
Kamdesa	2		
Keyapaha	1		
Late Goose	13		
Leibs Blood Red	6		
Mammoth Eagle	4		
Mariposa	6		

Table 7.—Cherry Varieties that Failed to Survive

Name	Number Planted	Name	Number Planted
August Supreme	2	Seneca	3
Belle Magnifique	15	Stark's Gold	2
Bing	21	Suda Hardy	13
Black Beauty	4	Sweet September	6
Black Giant	6	Victor	2
Black Russian	4	Windsor	37
		Yellow Spanish	9
Black Sour	3		
Black Tatarian	2		
Chase	6		
Crimson Eagle	4		
Early Rivers	12		
Eleagnus	1		
Emperor Francis	2		
Gold	28		
Governor Wood	15		
Hortense	13		
Kansas Sweet	6		
Lyons	2		
May Duke	12		
Olivet	12		
Robertson Red	2		
Rockhill	4		
Royal Duke	2		
Schmidt Biggareau	8		

Table 8.—Pear Varieties that Failed to Survive

Name	Number Planted	Name	Number Planted
Anjou	6	Petrovsk	2
Bartlett	15	Phelps	4
Cayuga	6	Pineapple	12
Chang Pushkin Root	5	Pound	15
China Pear	2	Pultney	4
Clyde	2	Pyrus betulaefolia	3
Conference	6	Pyrus Champali	2
Conklin	9	Rossney	27
Copes Seedless	5	Sadko	3
Dana Hovey	2	Seckel	13
Douglas	18	Selenga	1
Duchess	15	Sheldon	6
Erie Dwarf	1	Sladky	3
Ewart	5	South Dakota	5
Finland	4	Tanya	1
Finsib	1	Tiana	2
Funk's Colorado	2	Vermont Beauty	6
Gorham	2	Walenta #2	2
Hansen's Seedless	6	Walenta #3	7
Harbin	45	Wilder Early	1
Krylov	4	Willard	2
Lawrence	6	Worden Seckel	13
LeConte	11	Yermak	1
Olia	3	Zachman	21
Ovid	3		

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